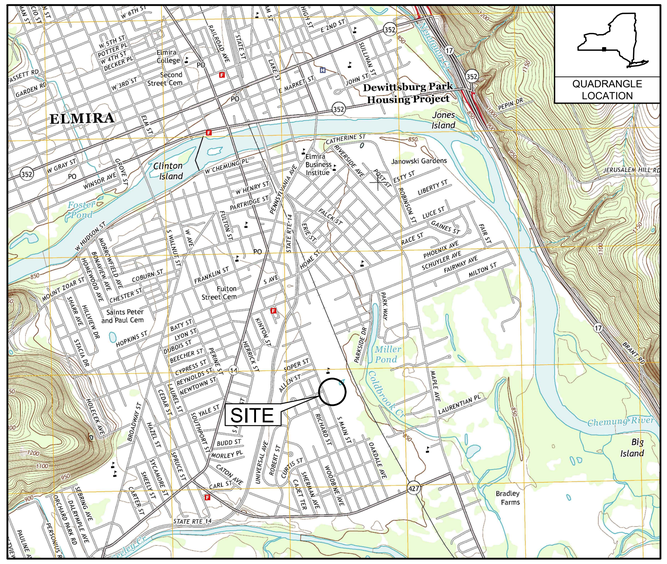
INTERIM REMEDIATION MEASURE

FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

JULY 2018



SOURCE: "ELMIRA, NEW YORK" USGS 7.5' QUANDRANGLE, 2013 SCALE: 1" = 2000'

LOCATION MAP

DRAWING LIST	
NUMBER	TITLE
1	TITLE SHEET
2	OVERALL EXISTING CONDITIONS
3	EXISTING CONDITIONS - NORTH
4	EXISTING CONDITIONS - SOUTH
5	PHASING AND STAGING PLAN
6	DEMOLITION PLAN
7	EXCAVATION PLAN I
8	EXCAVATION PLAN II
9	EXCAVATION SUPPORT PLAN
10	DETAILS I
11	DETAILS II
12	UTILIITES PLAN AND DETAILS
13	EROSION AND SEDIMENT CONTROL PLAN
14	EROSION AND SEDIMENT CONTROL DETAILS
15	MATERIAL STAGING AREA PLAN (MSA) PLAN
16	INTERMEDIATE FINAL GRADE

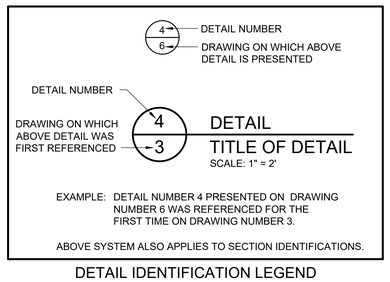
PREPARED FOR: UNISYS CORPORATION

CORPORATE ENVIRONMENTAL AFFAIRS
3199 PILOT KNOB ROAD MS F1B05
EAGAN, MN 55121

PREPARED BY:

Beech and Bonaparte engineering p.c.
an affiliate of Geosyntec Consultants

26 CENTURY HILL DRIVE, SUITE 205
LATHAM, NEW YORK 12110 PHONE:
(518) 785-0800



DETAIL IDENTIFICATION LEGEND

CONSTRUCTION DRAWING

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
2	05-JUN-2018	RESPONSE TO AGENCY COMMENTS	JWO	AK
1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

Beech and Bonaparte engineering p.c.
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UNISYS

TITLE: TITLE SHEET

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

7/17/18
SIGNATURE DATE

JOHN A. KRASNOPOLSKY — STATE OF NEW YORK — 089954-1 — LICENSED PROFESSIONAL ENGINEER

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-001
REVIEWED BY:	PLB	DRAWING NO.:	1 OF 16
APPROVED BY:	AK		

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NORTH AREA
(DRAWING 3)

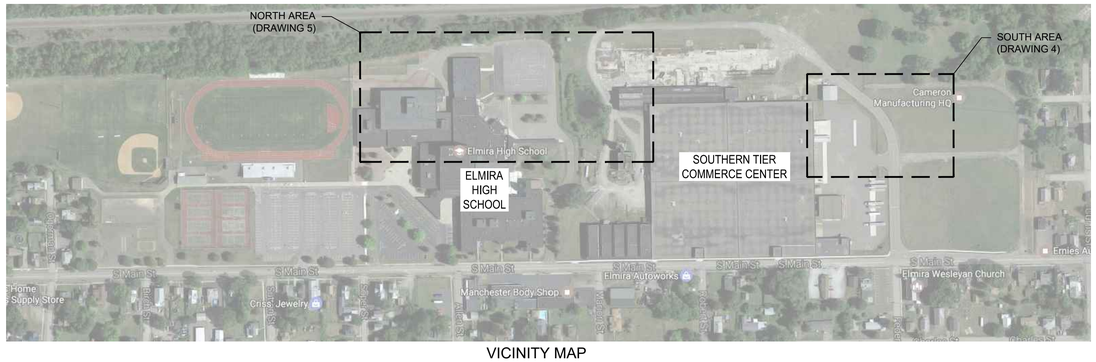
MATERIAL STAGING AREA (MSA)
(DRAWING 4)

TEMPORARY PARKING
29
15

ELMIRA HIGH SCHOOL

SOUTHERN TIER
COMMERCE CENTER

SOUTH MAIN STREET



VICINITY MAP

LEGEND

- MANHOLE
- CATCH BASIN
- CULVERT PIPE
- CHAIN LINK FENCE
- WOODEN FENCE
- PROPERTY LINE
- EXISTING CONTOUR LINE
- EDGE OF WATER
- EDGE OF WOODS OR BRUSH
- SANITARY SEWER
- STORM SEWER
- GAS PIPELINE
- WATER PIPELINE
- INGRESS / EGRESS FOR EXCAVATION

0 60' 120'
SCALE IN FEET

CONSTRUCTION DRAWING

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
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1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

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UNISYS

TITLE: OVERALL EXISTING CONDITIONS

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

SIGNATURE
7/17/18
DATE

JOHN A. KRASNOWIEC — STATE OF NEW YORK — 089954-1 — LICENSED PROFESSIONAL ENGINEER

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-002
REVIEWED BY:	PLB	DRAWING NO.:	2 OF 16
APPROVED BY:	AK		

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LEGEND

- MANHOLE
- CATCH BASIN
- CULVERT PIPE
- CHAIN LINK FENCE
- WOODEN FENCE
- PROPERTY LINE
- EXISTING CONTOUR LINE
- EDGE OF WATER
- EDGE OF WOODS OR BRUSH
- BURIED ELECTRIC CABLE
- SANITARY SEWER
- STORM SEWER
- NATURAL GAS LINE
- WATER LINE
- EXCAVATION LIMITS
- TREE

GENERAL NOTES:

1. EXISTING TOPOGRAPHY IS FROM:
   a. A TOPOGRAPHIC SURVEY OF ELMIRA HIGH SCHOOL BY HUNT ENGINEERS, ARCHITECTS, AND SURVEYORS IN SEPTEMBER 2016. VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88/GEOID 12A), HORIZONTAL CONTROL IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83/NA 2011).
   b. A TOPOGRAPHIC SURVEY OF FORMER REMINGTON RAND SITE BY WEILER ASSOCIATES, DATED 27 APRIL 2011.
   c. A BOUNDARY SURVEY OF LANDS OF SCOTT TECHNOLOGIES, INC. (F/K/A FIGGIE INTERNATIONAL, INC.), TOWN OF SOUTHPORT, CHEMUNG COUNTY, NEW YORK BY WEILER ASSOCIATES IN JUNE 1980, REVISED IN SEPTEMBER AND OCTOBER 2005.
2. UNDERGROUND UTILITIES SHOWN WERE MAPPED USING A COMBINATION OF OF FIELD LOCATED EVIDENCE AND EXISTING UTILITY MAPS. THE ACCURACY OF THESE UTILITY LOCATIONS CANNOT BE GUARANTEED. ALL UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED BEFORE EXCAVATING. CALL 'DIG SAFELY NEW YORK' 1-800-962-7962.

0 30' 60'
SCALE IN FEET

CONSTRUCTION DRAWING

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
2	05-JUN-2018	RESPONSE TO AGENCY COMMENTS	JWO	AK
1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

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UNISYS

TITLE: EXISTING CONDITIONS - NORTH

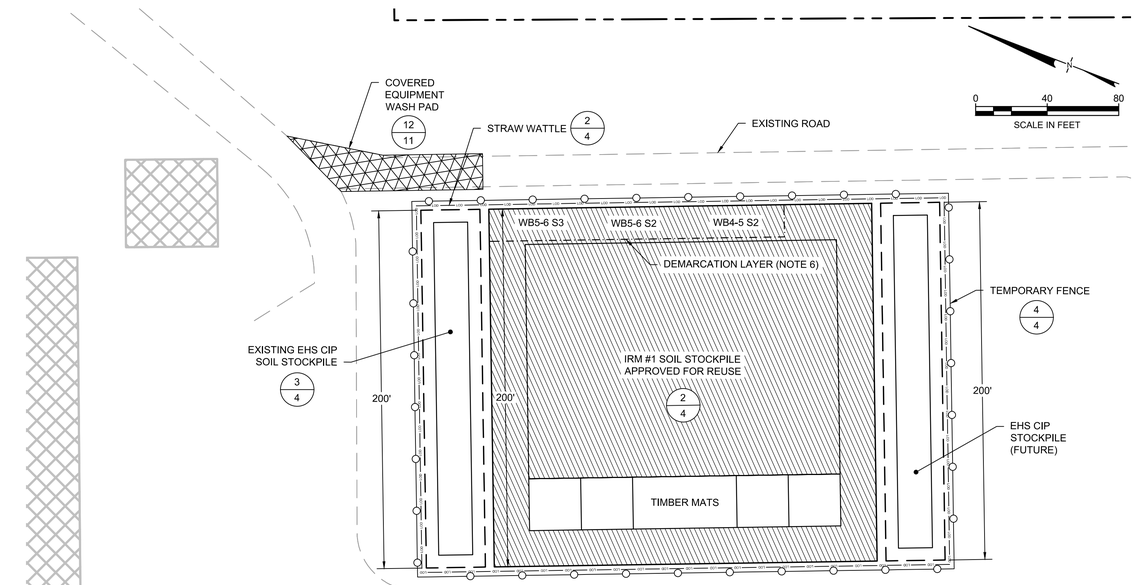
PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

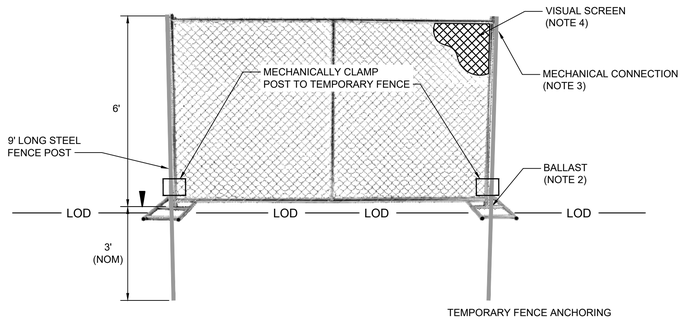
SIGNATURE
7/17/18
DATE

STATE OF NEW YORK ★ ARON A. KRASNOPOLER ★ LICENSED PROFESSIONAL ENGINEER 089954-1

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-003
REVIEWED BY:	PLB	DRAWING NO.:	
APPROVED BY:	AK	3 OF 16	



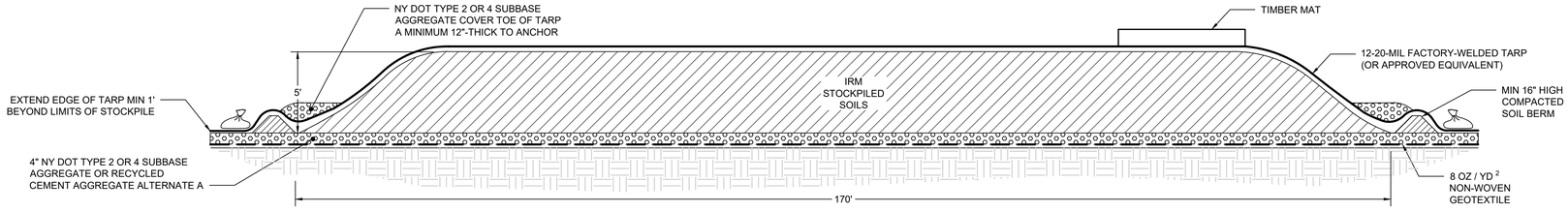
1/2 DETAIL
EXISTING SOIL STOCKPILE AREA
SCALE: 1" = 40'



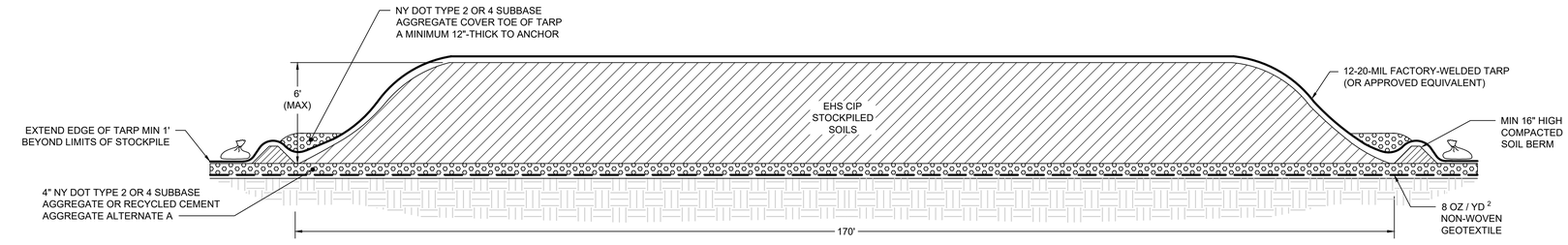
NOTES:

1. 6-FT TALL, PORTABLE CHAIN-LINK FENCE PANELS, SET ON THE EXISTING GROUND SURFACE, COINCIDENT WITH THE LIMIT OF CONSTRUCTION DISTURBANCE.
2. TEMPORARY BALLAST REPLACED WITH DRIVEN POSTS AS SHOWN, TO PREVENT OVERTURNING OF THE FENCE PANELS.
3. FLEXIBLE, MECHANICAL CONNECTION, BETWEEN FENCE PANELS.
4. FULL-COVERAGE VISUAL SCREENING OVER EACH ENTIRE FENCE PANEL.

4/4 DETAIL
TEMPORARY FENCE
SCALE: NOT TO SCALE
XREF: MN0832DX050



2/4 DETAIL
EXISTING IRM SOIL STOCKPILE (FRONT VIEW)
SCALE: NOT TO SCALE
XREF: MN0832DX051



3/4 DETAIL
EXISTING EHS CIP SOIL STOCKPILE (FRONT VIEW)
SCALE: NOT TO SCALE
XREF: MN0832DX052

CONSTRUCTION DRAWING

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
2	05-JUN-2018	RESPONSE TO AGENCY COMMENTS	JWO	AK
1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

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UNISYS

TITLE: EXISTING CONDITIONS - SOUTH

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

SIGNATURE
7/17/18
DATE

JOHN A. KRASNOPOLSKY — 089954-1 — LICENSED PROFESSIONAL ENGINEER — STATE OF NEW YORK

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-004
REVIEWED BY:	PLB	DRAWING NO.:	
APPROVED BY:	AK	4 OF 16	

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EXCAVATION PHASE	BACKFILL COMPLETE	TURNOVER TO ECSD
PHASE 1	7/16/2018	7/17/2018
PHASE 2	7/26/2018	8/1/2018
PHASE 3	8/21/2018	8/24/2018

LEGEND

- MANHOLE
- CATCH BASIN
- CULVERT PIPE
- CHAIN LINK FENCE
- WOODEN FENCE
- PROPERTY LINE
- EXISTING CONTOUR LINE
- EDGE OF WATER
- EDGE OF WOODS OR BRUSH
- BURIED ELECTRIC CABLE
- SANITARY SEWER
- STORM SEWER
- NATURAL GAS LINE
- WATER LINE
- EXCAVATION LIMITS
- TREE

CONSTRUCTION SEQUENCE:

1. INSTALL/MAINTAIN TEMPORARY SEDIMENT AND EROSION CONTROLS PURSUANT TO DRAWINGS 13 TO 14 AND IN ACCORDANCE WITH APPROVED SWPPP.
2. ~~DEMOLISH WATER LINE AND HYDRANT AS SHOWN ON DRAWING 6 AND INSTALL REPLACEMENT AS SHOWN ON DRAWING 12. REMOVED UTILITIES SHALL BE CHARACTERIZED FOR OFF-SITE DISPOSAL.~~
3. DEMOLISH ASPHALT PAVEMENT, CONCRETE SIDEWALKS AS SHOWN ON DRAWING 6.
4. PROTECT OTHER EXISTING UTILITIES WITHIN LIMITS OF EXCAVATION PURSUANT TO DRAWING 6.
5. EXCAVATE SOILS IN PHASES AS SHOWN. SEGREGATE INTO SOILS WITH TOTAL PCBS ≥ 50 MG/KG FOR DISPOSAL, SOILS WITH TOTAL PCBS < 50 BUT ≥ 10 MG/KG FOR DISPOSAL, AND SOILS WITH TOTAL < 10 MG/KG FOR POTENTIAL RE-USE AS BACKFILL ENSURING THAT IMPACTED SOILS ARE EXCAVATED TO THE DEPTHS SHOWN ON DRAWING 7 AND 8. SEE SECTION 02110.
6. BACKFILL THE EXCAVATION USING STOCKPILED SOILS THAT ARE APPROVED FOR RE-USE. SEE DETAIL 10 ON DRAWING 10.
7. FINISH EXCAVATION BACKFILL WITH APPROVED, OFF-SITE BORROW. THE UPPERMOST 2 FEET OF BACKFILL SHALL CONSIST OF A SOIL COVER SYSTEM. SEE DETAIL 10 ON DRAWING 10.
8. REMOVE TEMPORARY ACCESS ROADS ~~AND WASH PADS.~~ IN ACCORDANCE WITH SECTION 2.4 - SITE RESTORATION OF APPROVED IRM WORK PLAN.
9. AMEND TOPSOIL AND INSTALL PERMANENT VEGETATION IN LOCATIONS THAT ARE TO BE GRASSED.
10. REMOVE TEMPORARY SEDIMENT AND EROSION CONTROLS. SEE SECTIONS.

PHASING AND STAGING NOTES:

1. SEE SHEET 3 FOR GENERAL NOTES.
2. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE APPROVED IRM WORK PLAN. ANY PROPOSED MODIFICATION TO THE WORK PLAN MUST BE APPROVED BY NYSDEC.
3. CONSTRUCTION TRAFFIC PATTERNS MAY BE MODIFIED BY CONTRACTOR AS NECESSARY SUBJECT TO ENGINEER APPROVAL.
4. TREES AND WOODY VEGETATION SHALL BE CUT FLUSH WITH THE GROUND SURFACE AND DISPOSED OF OFF-SITE AT A PERMITTED LAND CLEARING MANAGEMENT FACILITY. ROOT BALLS SHALL BE MANAGED IN ACCORDANCE WITH THE SOILS MANAGEMENT PLAN. STUMPS SHALL BE GROUND UP IN-PLACE AND WOOD CHIPS MANAGED WITH THE SOILS MANAGEMENT PLAN.
5. CONTRACTOR SHALL INSTALL TEMPORARY 6-FOOT TALL CHAIN LINK FENCING AROUND THE LIMITS OF CONSTRUCTION. FENCING SHALL INCLUDE VISUAL SCREENING.
6. AUTOMATED TRUCK WASH SHALL BE MOBYDICK CONLINE WHEELWASHING SYSTEMS MANUFACTURED BY FRUTIGER COMPANY AG, OR EQUIVALENT APPROVED BY ENGINEER.
7. TEMPORARY TSCA TRANSIT ROAD SHALL BE PLACED OVER NON-TSCA AREAS WHEN BRINGING SOILS WITH ≥ 5O MG/KG PCBS TO THE TSCA ACCUMULATION AREA.
8. TURN OVER OF EXCAVATION PHASE WILL BE COORDINATED WITH ECSD AND MAY BE ADJUSTED BASED ON ECSD CONSTRUCTION SCHEDULE AND FIELD CONDITIONS.

0 30' 60'
SCALE IN FEET

CONSTRUCTION DRAWING

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
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1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

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UNISYS

TITLE: PHASING AND STAGING PLAN

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

SIGNATURE
7/17/18
DATE

STATE OF NEW YORK · ARON A. KRASNOPOLER · 089954-1 · LICENSED PROFESSIONAL ENGINEER

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-005
REVIEWED BY:	PLB	DRAWING NO.:	5 OF 16
APPROVED BY:	AK		

LEGEND

- MANHOLE
- CATCH BASIN
- 12"CMP — CULVERT PIPE
- CHAIN LINK FENCE
- WOODEN FENCE
- PROPERTY LINE
- 90 — EXISTING CONTOUR LINE
- EDGE OF WATER
- EDGE OF WOODS OR BRUSH
- E — BURIED ELECTRIC CABLE
- SAN — SANITARY SEWER
- ST — STORM SEWER
- G — NATURAL GAS LINER
- W — WATER LINE
- EXCAVATION LIMITS
- TREE

DEMOLITION NOTES:

1. SAWCUT AND REMOVE ASPHALT PAVEMENT. ASSUME FULL DEPTH OF REMOVAL OF SUBBASE.
2. SAWCUT AND REMOVE CONCRETE SIDEWALK AND SUBBASE.
3. REMOVE HANDRAIL TO EXTENTS SHOWN.
4. PROTECT STORM PPE TO REMAIN.
5. PROTECT GAS AND ELECTRIC LINE TO REMAIN.
6. SAWCUT AND REMOVE CONCRETE CURB.
7. PROTECT WATER LINE TO REMAIN.
8. ~~REMOVE WATER LINE AND HYDRANT.~~
9. REMOVE TREE, PLANTERS, AND MULCH BED.
10. REMOVE BASKETBALL GOALS AND POSTS.
11. DECOMMISSION MONITORING WELLS IN ACCORDANCE WITH NYSDEC P POLICY CP-43.
12. PROTECT MONITORING WELL TO REMAIN.

0 20' 40'
SCALE IN FEET

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
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UNISYS

TITLE: DEMOLITION PLAN

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

SIGNATURE
7/17/18
DATE

JASON A. KRASNOPOLSKY — STATE OF NEW YORK — 099954 — LICENSED PROFESSIONAL ENGINEER

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-006
REVIEWED BY:	PLB	DRAWING NO.:	
APPROVED BY:	AK	6 OF 16	

CONSTRUCTION DRAWING

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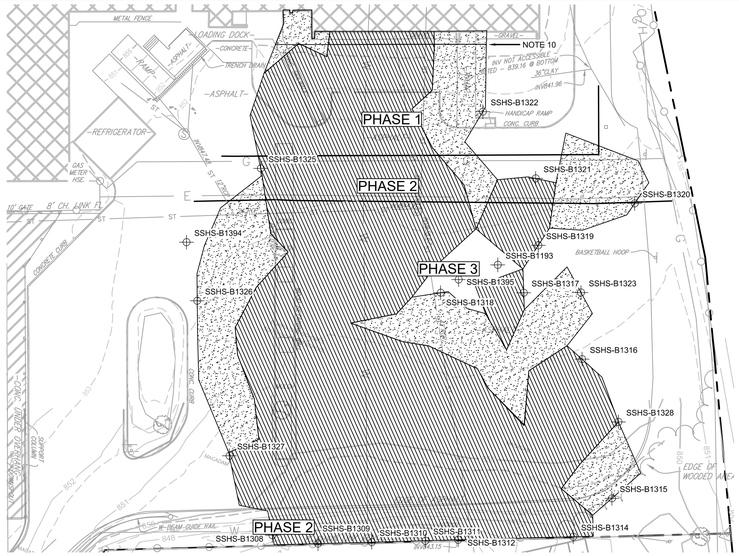
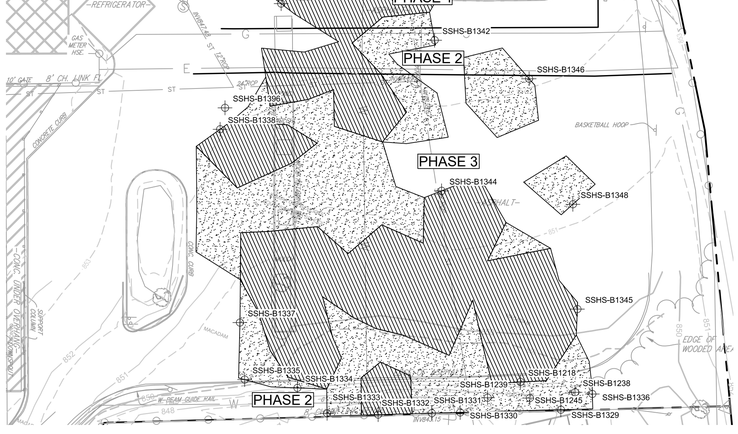
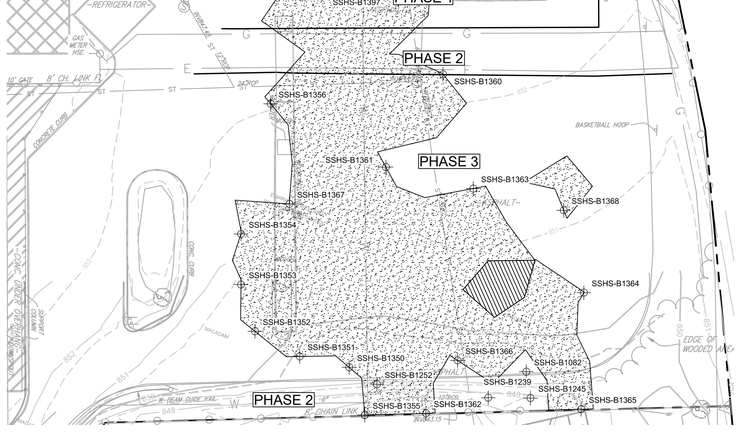
0-2 FT EXCAVATION



2-4 FT EXCAVATION



4-6 FT EXCAVATION



6-8 FT EXCAVATION

POST-EXCAVATION PCB CONFIRMATION SAMPLES

Location	Easting	Northing	Sampling Depth (feet bgs)
SSHS-B1065	762788.93	753782.56	0-2
SSHS-B1066	762824.21	753711.81	0-2
SSHS-B1188	762805.32	753752.49	0-2
SSHS-B1193	762685.35	753781.27	2-4
SSHS-B1394	762518.34	753730.76	2-4
SSHS-B1395	762667.87	753765.80	2-4
SSHS-B1071	762604.88	753876.81	4-6
SSHS-B1212	762597.45	753836.22	4-6
SSHS-B1218	762746.40	753658.34	4-6
SSHS-B1396	762537.41	753742.28	4-6

Location	Easting	Northing	Sampling Depth (feet bgs)
SSHS-B1238	762776.98	753663.86	4-6
SSHS-B1239	762732.49	753643.56	4-6
SSHS-B1245	762754.58	753651.88	4-6
SSHS-B1082	762747.12	753664.80	6-8
SSHS-B1085	762593.44	753822.56	6-8
SSHS-B1239	762732.49	753643.56	6-8
SSHS-B1245	762754.58	753651.88	6-8
SSHS-B1256	762621.85	753850.83	6-8
SSHS-B1397	762597.60	753835.73	6-8
SSHS-B1252	762671.69	753628.30	6-8

POST-EXCAVATION NON-PCB CONFIRMATION SAMPLES

Location	Easting	Northing	Sampling Depth (feet bgs)
SSHS-B1260	762735.77	753883.54	0-2
SSHS-B1261	762752.23	753859.70	0-2
SSHS-B1262	762768.23	753834.32	0-2
SSHS-B1263	762782.47	753808.01	0-2
SSHS-B1264	762794.52	753780.54	0-2
SSHS-B1265	762806.57	753753.07	0-2
SSHS-B1266	762818.67	753725.61	0-2
SSHS-B1269	762782.66	753655.95	0-2
SSHS-B1271	762720.93	753630.32	0-2
SSHS-B1272	762699.54	753621.44	0-2
SSHS-B1273	762671.83	753609.94	0-2
SSHS-B1274	762644.12	753598.44	0-2
SSHS-B1275	762616.42	753586.94	0-2
SSHS-B1276	762630.52	753888.43	0-2
SSHS-B1278	762534.44	753805.47	0-2
SSHS-B1279	762513.68	753724.65	0-2
SSHS-B1280	762561.00	753699.79	0-2
SSHS-B1281	762595.64	753616.78	0-2
SSHS-B1282	762710.78	753893.23	0-2
SSHS-B1308	762621.86	753595.06	2-4
SSHS-B1309	762647.41	753599.81	2-4
SSHS-B1310	762675.12	753611.31	2-4
SSHS-B1311	762702.82	753622.81	2-4
SSHS-B1312	762719.76	753629.84	2-4
SSHS-B1314	762779.21	753654.51	2-4
SSHS-B1315	762791.71	753682.33	2-4
SSHS-B1316	762748.24	753748.93	2-4
SSHS-B1317	762704.49	753771.96	2-4
SSHS-B1318	762661.10	753755.31	2-4
SSHS-B1319	762702.59	753799.60	2-4
SSHS-B1320	762744.49	753840.76	2-4
SSHS-B1321	762687.83	753833.99	2-4
SSHS-B1322	762646.86	753858.30	2-4
SSHS-B1323	762734.33	753783.50	2-4
SSHS-B1325	762542.31	753784.15	2-4
SSHS-B1326	762535.68	753702.34	2-4

Location	Easting	Northing	Sampling Depth (feet bgs)
SSHS-B1327	762583.50	753627.90	2-4
SSHS-B1328	762779.79	753723.53	2-4
SSHS-B1329	762773.07	753651.96	4-6
SSHS-B1330	762721.12	753630.40	4-6
SSHS-B1331	762706.44	753624.31	4-6
SSHS-B1332	762678.73	753612.81	4-6
SSHS-B1333	762651.85	753603.27	4-6
SSHS-B1334	762631.24	753610.57	4-6
SSHS-B1335	762602.10	753604.38	4-6
SSHS-B1336	762786.38	753666.46	4-6
SSHS-B1337	762588.21	753633.14	4-6
SSHS-B1338	762539.12	753730.09	4-6
SSHS-B1339	762545.82	753807.88	4-6
SSHS-B1342	762633.21	753819.49	4-6
SSHS-B1344	762667.03	753742.31	4-6
SSHS-B1345	762761.55	753707.79	4-6
SSHS-B1346	762690.25	753818.37	4-6
SSHS-B1348	762738.21	753761.59	4-6
SSHS-B1350	762653.82	753631.59	6-8
SSHS-B1351	762625.82	753627.35	6-8
SSHS-B1352	762597.46	753631.49	6-8
SSHS-B1353	762580.80	753653.14	6-8
SSHS-B1354	762570.65	753679.44	6-8
SSHS-B1355	762671.56	753609.83	6-8
SSHS-B1356	762560.11	753753.36	6-8
SSHS-B1357	762543.51	753815.58	6-8
SSHS-B1359	762616.93	753856.91	6-8
SSHS-B1360	762644.09	753803.28	6-8
SSHS-B1361	762632.88	753743.43	6-8
SSHS-B1362	762703.11	753622.92	6-8
SSHS-B1363	762682.80	753749.76	6-8
SSHS-B1364	762761.36	753717.59	6-8
SSHS-B1365	762783.25	753656.19	6-8
SSHS-B1366	762709.01	753656.89	6-8
SSHS-B1367	762589.85	753704.84	6-8
SSHS-B1368	762734.32	753756.54	6-8

LEGEND

- POST - EXCAVATION CONFIRMATION SAMPLE
- MANHOLE CATCH
- BASIN CULVERT
- PIPE
- CHAIN LINK FENCE
- WOODEN FENCE
- PROPERTY LINE
- EXISTING CONTOUR LINE
- EDGE OF WATER
- EDGE OF WOODS OR BRUSH
- BURIED ELECTRIC CABLE
- SANITARY SEWER
- STORM SEWER
- NATURAL GAS LINE
- WATER LINE
- EXCAVATION LIMITS
- TREE

- NON RCRA/TSCA SOILS IN UPPER 2 FT TO BE RE-USED AS BACKFILL (PCBS >= 1 AND < 10 mg/kg)
- NON RCRA/TSCA SOILS IN UPPER 2 FT (PCBS >= 1 AND < 10 mg/kg) OVERLAYING TSCA (PCBs >=50 mg/kg) TO BE RE-USED AS BACKFILL
- NON RCRA/TSCA FOR OFF-SITE DISPOSAL (PCBS >=10 AND < 50 MG/KG)
- TSCA SOILS FOR OFF-SITE DISPOSAL (PCBS >= 50 MG/KG)

0 40' 80'
SCALE IN FEET

NOTES:

1. SEE SHEET 3 FOR GENERAL NOTES.
2. SEE SECTION 02110 FOR REQUIREMENTS REGARDING EXCAVATION.
3. CONTRACTOR SHALL SUBMIT TO THE ENGINEER AN EXCAVATION WORK PLAN CONFORMING TO THE APPROVED IRM WORK PLAN. ANY MODIFICATIONS OR DEVIATIONS FROM THE APPROVED IRM WORK PLAN MUST BE APPROVED BY NYSDEC.
4. EXCAVATED SOILS BELOW 50 Mg/Kg PCBs SHALL BE SEGREGATED AND STOCKPILED AT THE MATERIAL STAGING AREA FOR SAMPLING PURSUANT TO THE CATEGORIES SHOWN.
5. SOILS WITH 50 Mg/Kg PCBS OR GREAATER WILL BE TRANSFERRED TO THE PCB ACCUMULATION AREA) AND LOADED INTO TRUCKS IN THE TSCA LOADING AREA FOR OFF-SITE DISPOSAL. SEE SHEET 5 FOR DETAILS.
6. ALL VEHICLES LEAVING THE EXCAVATION AREA SHALL ONLY USE THE ESTABLISHED TEMPORARY ACCESS ROAD TO ENTER THE AUTOMATED TRUCK WASH. WASH-DOWN OF ALL VEHICLE TIRES/UNDERCARRIAGE SHALL BE PERFORMED PRIOR TO VEHICLES LEAVING THE SITE.
7. PLACE DEMARCATION LAYER NETTING OVER BOTTOM OF EXCAVATION PRIOR TO BACKFILLING. SEE DETAIL 7 ON DRAWING 10.
8. ALL MATERIALS IMPORTED TO THE SITE MUST MEET THE REQUIREMENTS OF DER-10 SECTION 5.4(e) AND APPENDIX 5 FOR RESTRICTED RESIDENTIAL USE. ALL CONFORMANCE DATA FOR IMPORTED MATERIALS MUST BE VALIDATED AND APPROVED BY NYSDEC.
9. CONFIRMATION SAMPLES WILL BE COLLECTED BY ENGINEER. SEE IRM#2 WORK PLAN FOR DETAILS.
10. EXCAVATION ADJACENT TO THE EHS BUILDING SHALL NOT EXTEND BELOW THE PILLARS SUPPORTING THE FOUNDATION. APPROX. 3' 4" DEPTH DEEP.

CONSTRUCTION DRAWING

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
2	05-JUN-2018	RESPONSE TO AGENCY COMMENTS	JWO	AK
1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

Beech and Bonaparte engineering p.c.
an affiliate of Geosyntec Consultants

UNISYS

TITLE: EXCAVATION PLAN I

PROJECT: INTERIM REMEDIATION MEASURE

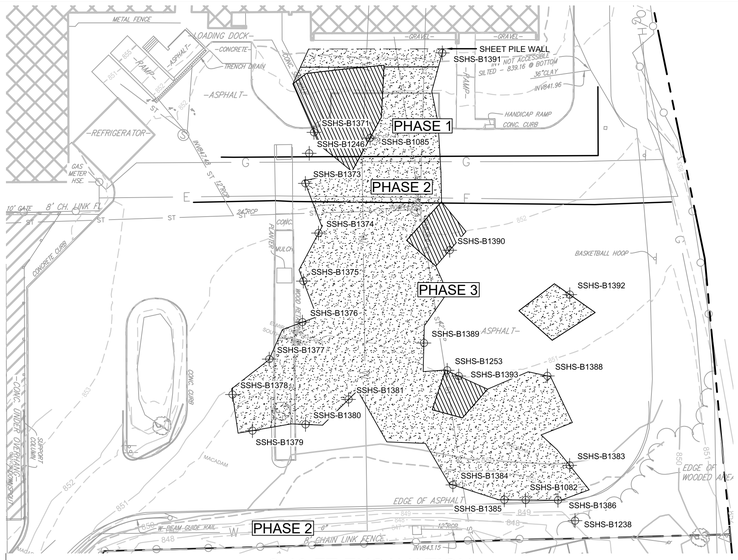
SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

SIGNATURE
7/17/18
DATE

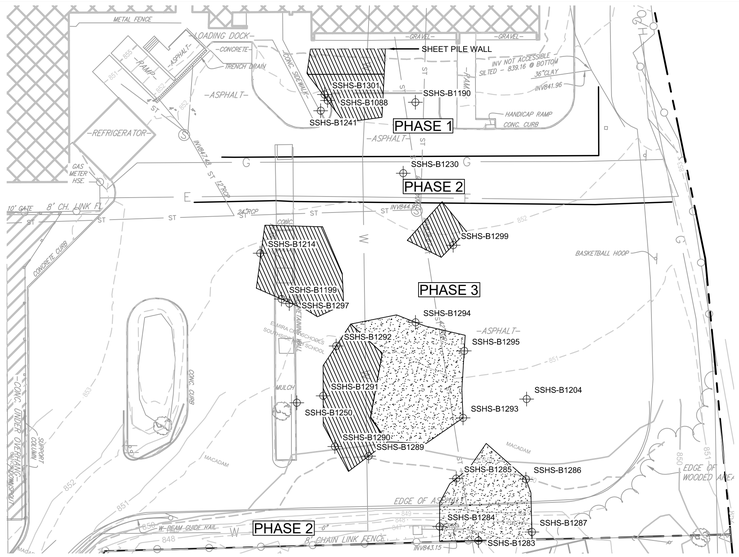
JOHN A. KRASNOPOLSKY — STATE OF NEW YORK — 089954-1 — LICENSED PROFESSIONAL ENGINEER

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-007
REVIEWED BY:	PLB	DRAWING NO.:	7 OF 16
APPROVED BY:	AK		

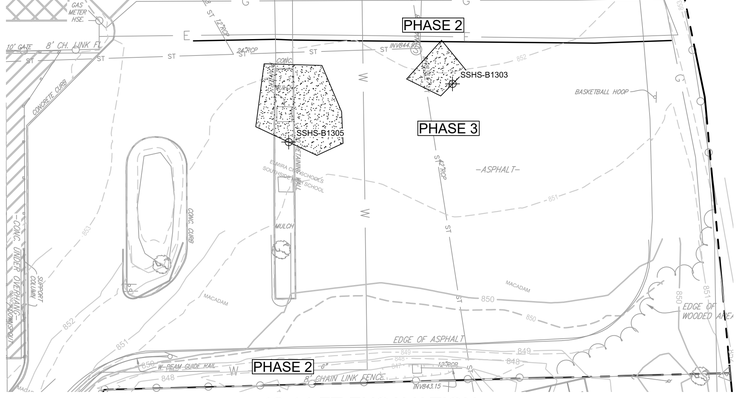
P:\cadd\Unisys - Elmira NY (MN0832D)\DWG\INTERIM REMEDIATION MEASURE\MN0832D-007.dwg
amalek - 7/17/2018 1:41 PM



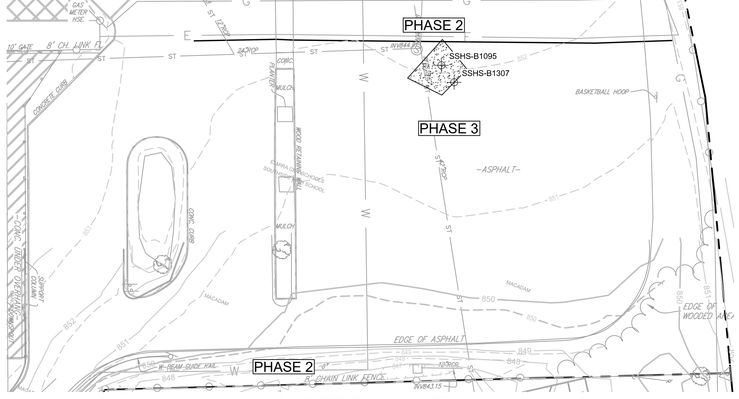
8-10 FT EXCAVATION



10-12 FT EXCAVATION



12-14 FT EXCAVATION



14-16 FT EXCAVATION

POST-EXCAVATION PCB CONFIRMATION SAMPLES

Location	Easting	Northing	Sampling Depth (feet bgs)
SSHS-B1082	762747.12	753664.80	8-10
SSHS-B1085	762593.44	753822.56	8-10
SSHS-B1238	762776.98	753663.86	8-10
SSHS-B1246	762564.70	753802.41	8-10
SSHS-B1253	762680.16	753716.74	8-10
SSHS-B1088	762563.35	753833.51	10-12
SSHS-B1190	762609.55	753850.15	10-12
SSHS-B1199	762579.05	753720.62	10-12
SSHS-B1204	762727.11	753717.55	10-12
SSHS-B1214	762558.81	753740.30	10-12
SSHS-B1230	762617.46	753810.69	10-12
SSHS-B1241	762561.81	753826.78	10-12
SSHS-B1250	762607.91	753669.58	10-12
SSHS-B1199	762579.05	753720.62	12-14
SSHS-B1214	762558.81	753740.30	12-14
SSHS-B1095	762648.03	753790.44	16-18

POST-EXCAVATION NON-PCB CONFIRMATION SAMPLES

Location	Easting	Northing	Sampling Depth (feet bgs)
SSHS-B1371	762563.02	753814.31	8-10
SSHS-B1373	762568.75	753785.97	8-10
SSHS-B1374	762585.57	753762.60	8-10
SSHS-B1375	762587.24	753734.50	8-10
SSHS-B1376	762594.99	753712.90	8-10
SSHS-B1377	762585.11	753686.96	8-10
SSHS-B1378	762573.04	753661.17	8-10
SSHS-B1379	762590.68	753646.26	8-10
SSHS-B1380	762617.12	753660.16	8-10
SSHS-B1381	762634.57	753681.85	8-10
SSHS-B1383	762763.12	753691.66	8-10
SSHS-B1384	762706.13	753658.09	8-10
SSHS-B1385	762735.90	753660.59	8-10
SSHS-B1386	762763.99	753671.13	8-10
SSHS-B1388	762733.59	753733.89	8-10
SSHS-B1389	762662.54	753726.35	8-10
SSHS-B1390	762657.43	753779.93	8-10
SSHS-B1391	762614.04	753881.46	8-10
SSHS-B1392	762728.98	753780.82	8-10
SSHS-B1393	762687.39	753716.09	8-10

Location	Easting	Northing	Sampling Depth (feet bgs)
SSHS-B1283	762730.28	753634.06	10-12
SSHS-B1284	762707.22	753633.60	10-12
SSHS-B1285	762706.31	753661.98	10-12
SSHS-B1286	762742.78	753675.54	10-12
SSHS-B1287	762756.48	753649.23	10-12
SSHS-B1289	762656.05	753656.07	10-12
SSHS-B1290	762636.52	753654.38	10-12
SSHS-B1291	762620.28	753678.50	10-12
SSHS-B1292	762617.05	753707.06	10-12
SSHS-B1293	762697.68	753694.98	10-12
SSHS-B1294	762653.72	753735.34	10-12
SSHS-B1295	762684.88	753730.19	10-12
SSHS-B1297	762584.07	753719.87	10-12
SSHS-B1299	762657.92	753783.09	10-12
SSHS-B1301	762560.55	753835.98	10-12
SSHS-B1303	762657.92	753783.09	12-14
SSHS-B1305	762584.07	753719.87	12-14
SSHS-B1307	762658.14	753784.10	14-16

LEGEND

- POST - EXCAVATION CONFIRMATION SAMPLE
- MANHOLE CATCH
- BASIN CULVERT
- PIPE (12"CMP)
- CHAIN LINK FENCE
- WOODEN FENCE
- PROPERTY LINE
- EXISTING CONTOUR LINE (860)
- EDGE OF WATER
- EDGE OF WOODS OR BRUSH
- BURIED ELECTRIC CABLE (E)
- SANITARY SEWER (SAN)
- STORM SEWER (ST)
- NATURAL GAS LINE (G)
- WATER LINE (W)
- EXCAVATION LIMITS
- TREE
- NON RCRA/TSCA FOR OFF-SITE DISPOSAL (PCBS >=10 AND < 50 MG/KG)
- TSCA SOILS FOR OFF-SITE DISPOSAL (PCBS >= 50 MG/KG)

N

0 40' 80'

SCALE IN FEET

NOTES:

1. SEE SHEET 3 FOR GENERAL NOTES.
2. SEE SECTION 02110 FOR REQUIREMENTS REGARDING EXCAVATION.
3. CONTRACTOR SHALL SUBMIT TO THE ENGINEER AN EXCAVATION WORK PLAN CONFORMING TO THE APPROVED IRM WORK PLAN. ANY MODIFICATIONS OR DEVIATIONS FROM THE APPROVED IRM WORK PLAN MUST BE APPROVED BY NYSDEC.
4. EXCAVATED SOILS BELOW 50 Mg/Kg PCBs SHALL BE SEGREGATED AND STOCKPILED AT THE MATERIAL STAGING AREA FOR SAMPLING PURSUANT TO THE CATEGORIES SHOWN.
5. SOILS WITH 50 Mg/Kg PCBS OR GREAATER WILL BE TRANSFERRED TO THE PCB ACCUMULATION AREA) AND LOADED INTO TRUCKS IN THE TSCA LOADING AREA FOR OFF-SITE DISPOSAL. SEE SHEET 5 FOR DETAILS.
6. SOILS ABOVE 50 Mg/Kg PCBs SHALL BE LIVE LOADED INTO TRUCKS FOR OFF-SITE DISPOSAL.
7. ALL VEHICLES LEAVING THE EXCAVATION AREA SHALL ONLY USE THE ESTABLISHED TEMPORARY ACCESS ROAD TO ENTER THE AUTOMATED TRUCK WASH. WASH-DOWN OF ALL VEHICLE TIRES/UNDERCARRIAGE SHALL BE PERFORMED PRIOR TO VEHICLES LEAVING THE SITE.
8. PLACE DEMARCATION LAYER NETTING OVER BOTTOM OF EXCAVATION PRIOR TO BACKFILLING. SEE DETAIL 7 ON DRAWING 10.
9. ALL MATERIALS IMPORTED TO THE SITE MUST MEET THE REQUIREMENTS OF DER-10 SECTION 5.4(e) AND APPENDIX 5 FOR RESTRICTED RESIDENTIAL USE. ALL CONFORMANCE DATA FOR IMPORTED MATERIALS MUST BE VALIDATED AND APPROVED BY NYSDEC.
9. CONFIRMATION SAMPLES WILL BE COLLECTED BY ENGINEER. SEE IRM#2 WORK PLAN FOR DETAILS.
10. EXCAVATION ADJACENT TO THE EHS BUILDING SHALL NOT EXTEND BELOW THE PILLARS SUPPORTING THE FOUNDATION. APPROX. 3' 4" DEPTH DEEP.

CONSTRUCTION DRAWING

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
2	05-JUN-2018	RESPONSE TO AGENCY COMMENTS	JWO	AK
1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

Beech and Bonaparte engineering p.c.
an affiliate of Geosyntec Consultants

UNISYS

TITLE: EXCAVATION PLAN II

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION ELMIRA, NEW YORK

SIGNATURE 7/17/18 DATE

JOHN A. KRASNOPOLSKY — STATE OF NEW YORK — 089954-1 — LICENSED PROFESSIONAL ENGINEER

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-007
REVIEWED BY:	PLB	DRAWING NO.:	
APPROVED BY:	AK		8 OF 16

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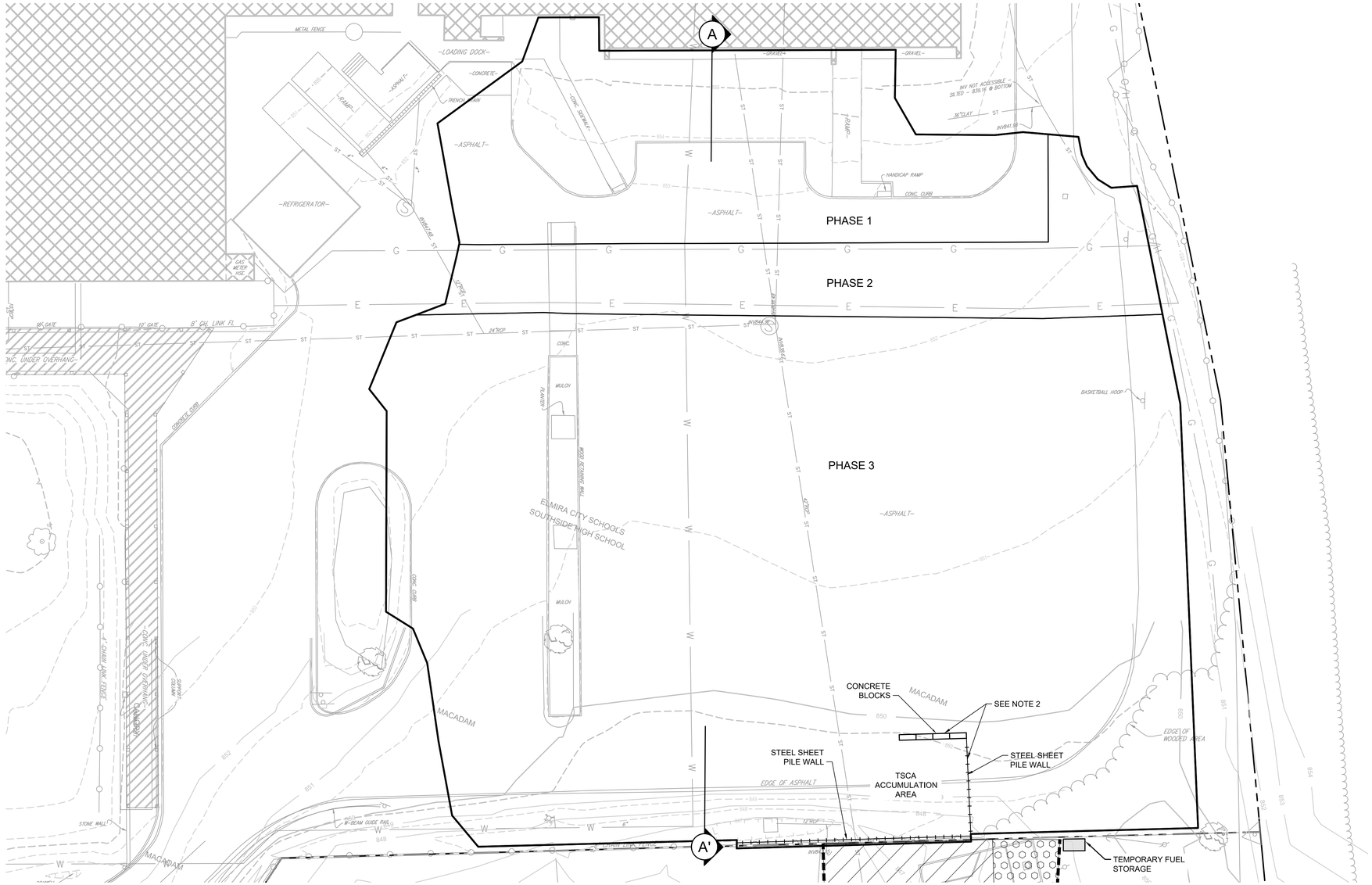

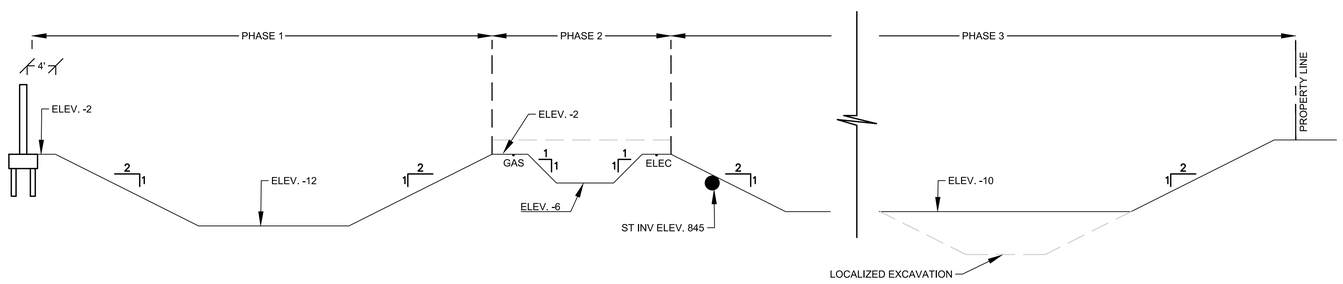

A-A'
9
DETAIL
CROSS SECTION
(NOTE)
SCALE: 1"=10'
XREF: MN0832DX064 (CROSS SECTION).dwg

LEGEND

- MANHOLE
- CATCH BASIN
- 12"CMP — CULVERT PIPE
- CHAIN LINK FENCE
- WOODEN FENCE
- PROPERTY LINE
- 850 — EXISTING CONTOUR LINE
- EDGE OF WATER
- EDGE OF WOODS OR BRUSH
- E — BURIED ELECTRIC CABLE
- SAN — SANITARY SEWER
- ST — STORM SEWER
- G — NATURAL GAS LINER
- W — WATER LINE
- EXCAVATION LIMITS
- TREE

NOTE:

1. SHEET PILE DESIGN TO BE PROVIDED TO CONTRACTOR BY ENGINEER DURING CONSTRUCTION.
2. NORTHERN CONCRETE BLOCKS AND EASTERN SHEET PILE WALLS THAT DEFINE THE TSCA ACCUMULATION AREA ARE USED FOR SEPARATION AND ARE NOT NECESSARY FOR EXCAVATION SUPPORT.
3. CROSS SECTION WILL VARY WITH EXCAVATION PLANS ON SHEETS 7 AND 8.

EXCAVATION NOTES:

1. EXCAVATION SIDE SLOPES OF TWO (2) HORIZONTAL TO ONE (1) VERTICAL (2H:1V) WILL BE IMPLEMENTED IN THE FOLLOWING AREAS:
   A. SOUTH OF THE EHS BUILDING IN PHASE 1 AFTER BENCHING TWO (2) FEET BGS APPROXIMATELY FOUR (4) FEET FROM BUILDING FOUNDATION;
   B. NORTH OF THE GAS LINE IN PHASE 1 FROM PHASE LIMIT;
   C. SOUTH OF THE ELECTRIC LINE IN PHASE 3 FROM PHASE LIMIT;
   D. NORTH OF THE SOUTHERN PROPERTY LINE IN PHASE 3, AFTER BENCHING THREE (3) FEET FROM THE PROPERTY LINE. THIS EXCAVATION WILL OCCUR EAST AND WEST OF THE INSTALLED SHEET PILE WALL; AND
   E. EAST AND WEST SIDE OF THE EXCAVATION LIMIT IN PHASE 3 EXCAVATION FROM THE CURRENT GROUND SURFACE TO THE PROPOSED EXCAVATION DEPTH.
2. EXCAVATION SIDE SLOPES OF ONE (1) HORIZONTAL TO ONE (1) VERTICAL (1H:1V) WILL BE IMPLEMENTED IN PHASE 2 BETWEEN THE ACTIVE UTILITIES LINES:
   A. SOUTH OF THE GAS LINE IN PHASE 2 AFTER EXCAVATION TO THE TOP OF THE GAS LINE AND AFTER BENCHING THREE (3) FEET FROM THE GAS LINE ; AND
   B. NORTH OF THE ELECTRIC LINE IN PHASE 2 AFTER EXCAVATION TO THE TOP OF THE ELECTRIC LINE AND AFTER BENCHING THREE (3) FEET FROM THE ELECTRIC LINE.
3. EXCAVATION SIDE SLOPES OF TWO (2) HORIZONTAL TO ONE (1) VERTICAL (2H:1V) WILL BE IMPLEMENTED IN OTHER AREAS OF THE SITE WITH ADEQUATE SPACE.

0 20' 40'
SCALE IN FEET

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
2	05-JUN-2018	RESPONSE TO AGENCY COMMENTS	JWO	AK
1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

Beech and Bonaparte engineering p.c.
an affiliate of Geosyntec Consultants

UNISYS

TITLE: EXCAVATION SUPPORT PLAN

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

SIGNATURE
7/17/18
DATE

STATE OF NEW YORK — AARON A. KRASNOPOLSKY — 089954 — LICENSED PROFESSIONAL ENGINEER

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-009
REVIEWED BY:	PLB	DRAWING NO.:	9 OF 16
APPROVED BY:	AK		

CONSTRUCTION DRAWING

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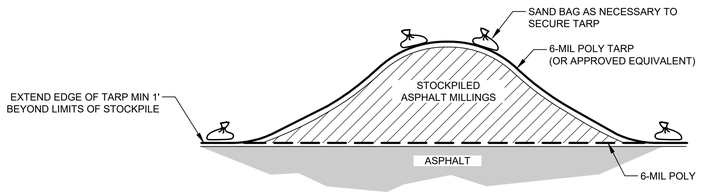
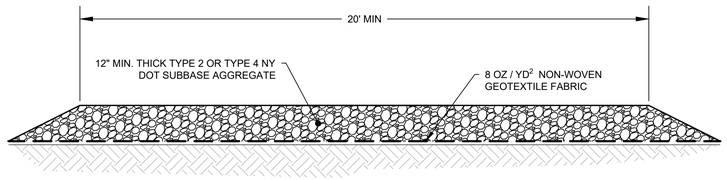
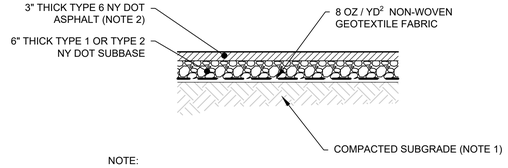


NOTE:
STOCKPILED SOILS SHALL BE TARPED AT THE END OF EVERY WORKING DAY.

5/5 DETAIL
STOCKPILE
SCALE: NOT TO SCALE
XREF: MN0832DX056



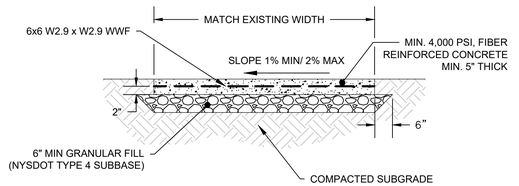
6/5 DETAIL
TEMPORARY HAUL ROAD
SCALE: NOT TO SCALE
XREF: MN0832DX057



NOTE:

1. ADJUST SUBGRADE ELEVATION TO SMOOTHLY TRANSITION FROM EXISTING ASPHALT TO REPAIR.
2. SUBMIT ASPHALT MIX TO ENGINEER FOR APPROVAL.

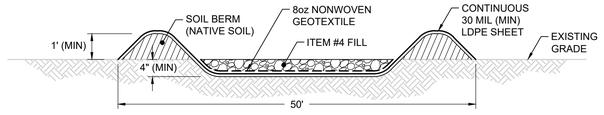
7/- DETAIL
ASPHALT DRIVE REPLACEMENT
(NOTE: AS NEEDED)
SCALE: NOT TO SCALE
XREF: MN0832DX054



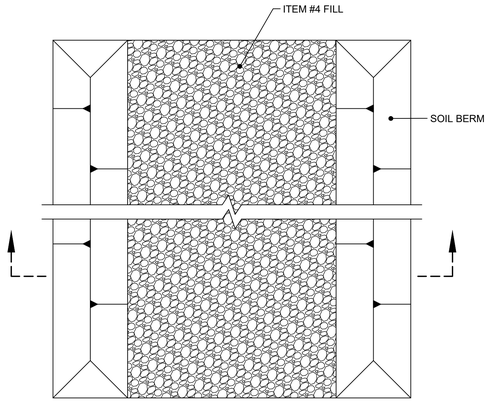
NOTE:

1. ADJUST SUBGRADE ELEVATION TO SMOOTHLY TRANSITION FROM EXISTING SIDEWALK TO REPAIR.
2. SIDEWALK TO BE SCORED IN A 5' x 5' SQUARE PATTERN OR AS SHOWN ON PLAN.

8/- DETAIL
SIDEWALK REPLACEMENT
(NOTE: AS NEEDED)
SCALE: NOT TO SCALE
XREF: MN0832DX055



SECTION

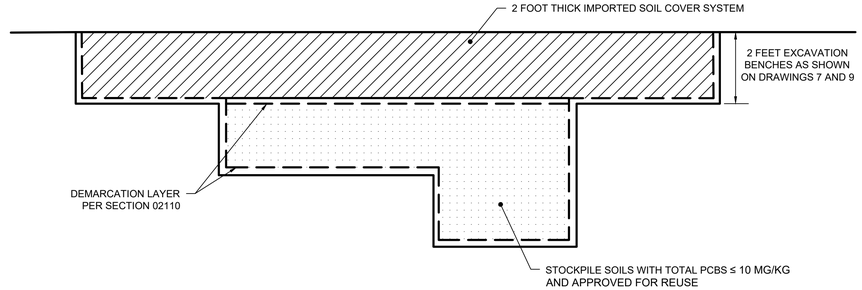


PLAN

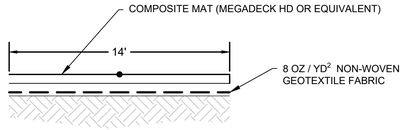
TSCA LOADING AREA NOTES:

1. SEE DRAWING 5 FOR GENERAL NOTES.
2. EXCAVATED SOILS SHALL BE STOCKPILED IN THE MATERIAL STAGING AREA FOR SAMPLING.
3. CONTRACTOR SHALL PLACE SUMP (SEE DETAIL 11) AT LOWEST POINT OF TSCA LOADING AREA. SUMP LOCATION SHALL BE APPROVED BY ENGINEER.
4. TSCA LOADING AREA SHALL BE COVERED USING CONTINUOUS 6-MIL POLY SHEETING AT THE END OF EACH DAY AND ON DAYS WHEN NOT IN USE.
5. HAUL TRUCKS SHALL BACK INTO THE TSCA LOADING AREA AND BE LOADED IN ACCORDANCE WITH SECTION 02057.

9/5 DETAIL
TSCA LOADING AREA
SCALE: NOT TO SCALE
XREF: MN0832DX060



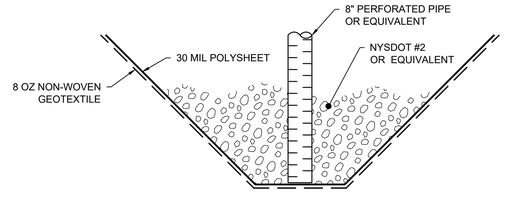
10/5 DETAIL
EXCAVATION BACKFILL
SCALE: NOT TO SCALE
XREF: MN0832DX060



NOTE:

1. COMPOSITE MATS SHALL BE USEP AS NECESSARY BASED ON FIELD CONDITIONS (E.G.)

30/10 DETAIL
TEMPORARY TSCA TRANSIT ROAD
(NOTE: AS NEEDED)
SCALE: NOT TO SCALE
XREF: MN0832DX202 (TEMPORARY TRANSIT ROAD)



11/10 DETAIL
SUMP
SCALE: NOT TO SCALE
XREF:

NOTE:

1. ANY WATER COLLECTED WITHIN THE EQUIPMENT WASH PAD SUMP SHALL BE SEGREGATED, CHARACTERIZED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LOCAL STATE AND FEDERAL REGULATIONS.

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
2	05-JUN-2018	RESPONSE TO AGENCY COMMENTS	JWO	AK
1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

Beech and Bonaparte engineering p.c.
an affiliate of Geosyntec Consultants

UNISYS

TITLE: DETAILS I

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

SIGNATURE
7/17/18
DATE

JASON A. KRASNOVYDOV — LICENSED PROFESSIONAL ENGINEER — 089954-1 — STATE OF NEW YORK

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-010
REVIEWED BY:	PLB	DRAWING NO.:	10 OF 16
APPROVED BY:	AK		

CONSTRUCTION DRAWING

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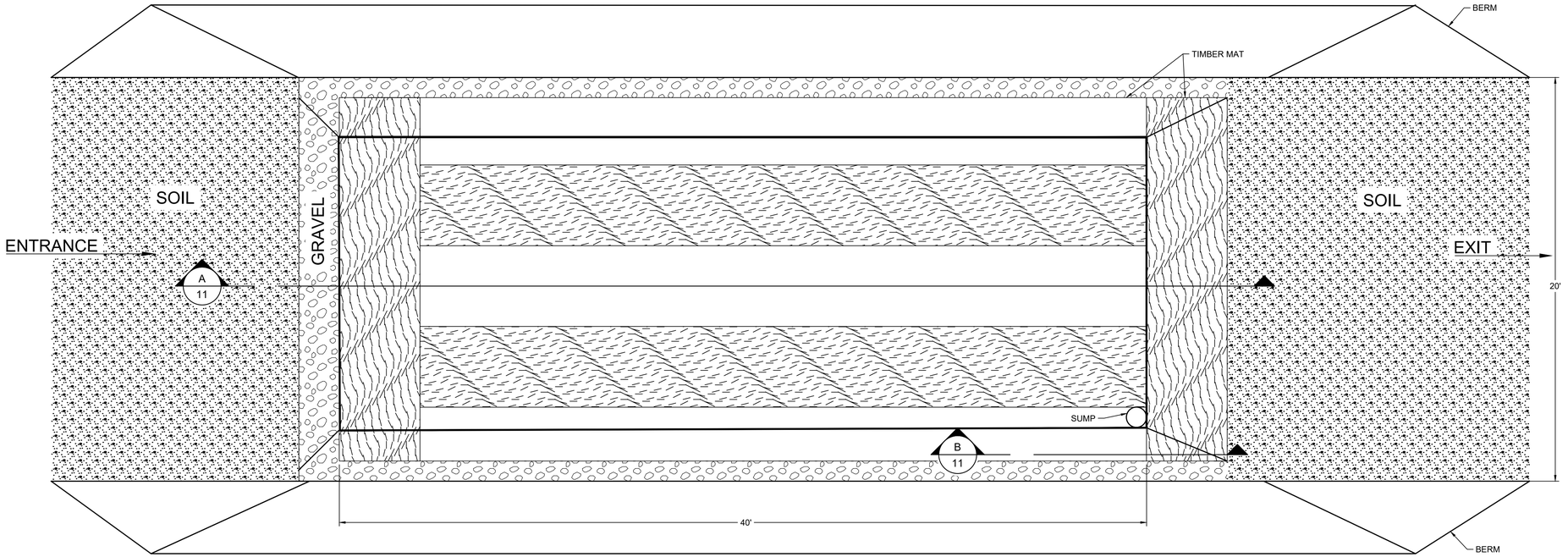
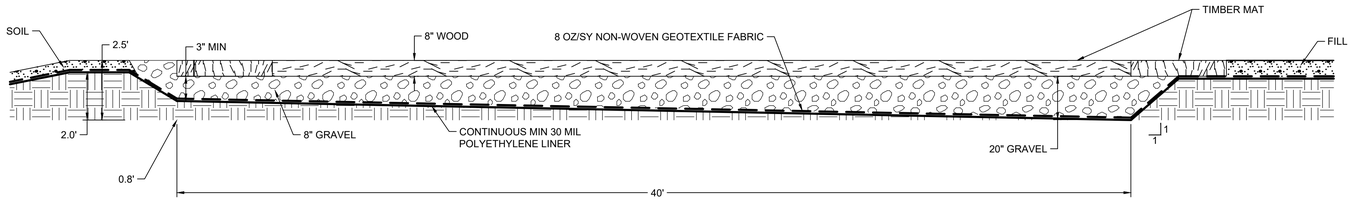
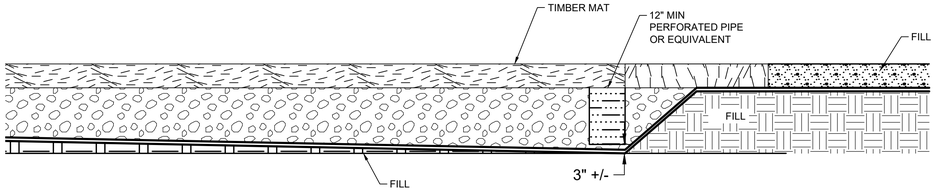


12/4 PLAN
EQUIPMENT WASH PAD
SCALE: NOT TO SCALE



A/11 SECTION
EQUIPMENT WASH PAD
SCALE: NOT TO SCALE



B/11 SECTION
EQUIPMENT WASH PAD SUMP
SCALE: NOT TO SCALE

NOTES:

1. ALL EQUIPMENT RINSE WATER SHALL BE CAPTURED WITHIN THE PAD AND NOT ALLOWED TO RUNOFF OR INFILTRATE.
2. INTERIOR BASE SHALL BE SLOPED SO THAT CAPTURED WATER DRAINS TO THE SUMP LOCATED AT THE LOWEST POINT. ADDITIONAL SUMPS MAY BE INSTALLED AT OTHER LOW SPOTS WITHIN THE AREA AS NECESSARY.
3. ANY WATER COLLECTED WITHIN THE EQUIPMENT WASH PAD SUMP SHALL BE SEGREGATED, CHARACTERIZED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LOCAL STATE AND FEDERAL REGULATIONS.

CONSTRUCTION DRAWING

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
2	05-JUN-2018	RESPONSE TO AGENCY COMMENTS	JWO	AK
1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

Beech and Bonaparte engineering p.c.
an affiliate of Geosyntec Consultants

UNISYS

TITLE: DETAILS II

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

SIGNATURE
7/17/18
DATE

JOHN A. KRASNOPOLSKY — STATE OF NEW YORK — LICENSED PROFESSIONAL ENGINEER — 089954-1

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-011
REVIEWED BY:	PLB	DRAWING NO.:	11 OF 16
APPROVED BY:	AK		

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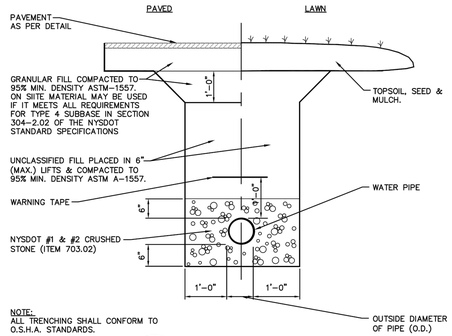
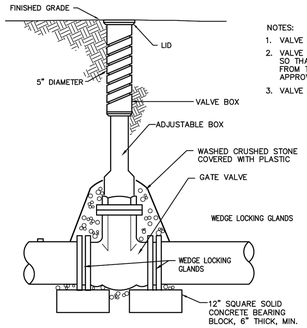
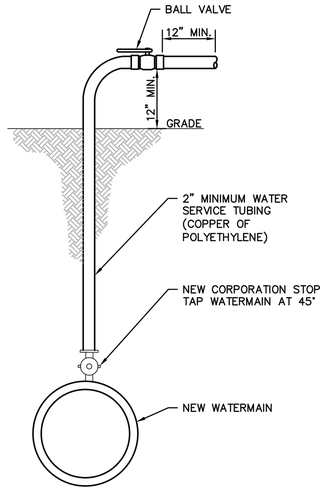


13/12 DETAIL
WATER TRENCH
SCALE: NOT TO SCALE



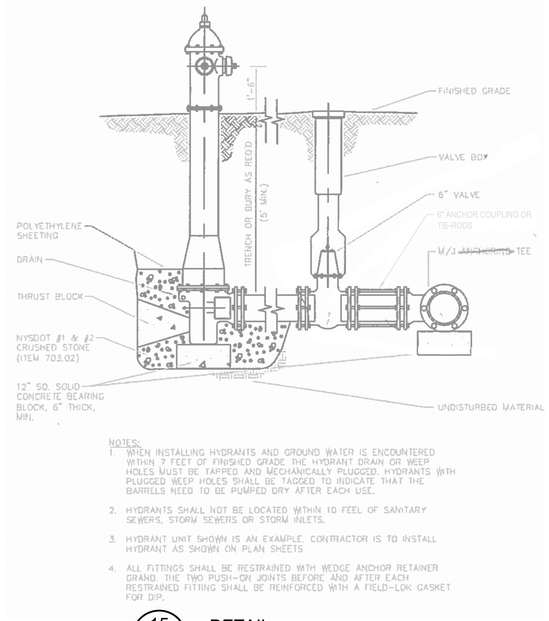
NOTES:
1. VALVE BOX COVER SHALL BE STAMPED "WATER"
2. VALVE OPERATING NUT MUST BE EXTENDED SO THAT THE DEPTH IS NO GREATER THAN 5' FROM THE SURFACE, USING A MANUFACTURER APPROVED EXTENSION KIT.
3. VALVE BOX MUST NOT REST ON PIPE

14/12 DETAIL
GATE VALVE
SCALE: NOT TO SCALE



NOTE:
1. UPON NOTIFICATION FROM THE NYS HEALTH DEPARTMENT THAT A SATISFACTORY WATER SAMPLE HAS BEEN OBTAINED, SHUT DOWN CORPORATION STOP AND REMOVE THE SERVICE TUBING.
2. IMMEDIATELY PRIOR TO PLACING THE WATERMAIN IN SERVICE THE CONTRACTOR SHALL REMOVE ALL CORPORATIONS ASSOCIATED WITH TEMPORARY FACILITIES AND REPLACE WITH THREADED BRASS PLUGS.
3. COST FOR TEMPORARY FILLING/ BLOW-OFF TAP TO BE INCLUDED IN PIPE ITEM.

16/12 DETAIL
SAMPLING TAP
SCALE: NOT TO SCALE



NOTES:
1. WHEN INSTALLING HYDRANTS AND GROUND WATER IS ENCOUNTERED WITHIN 7 FEET OF FINISHED GRADE THE HYDRANT DRAIN OR WEEP HOLES MUST BE TAPPED AND MECHANICALLY PLUGGED. HYDRANTS WITH PLUGGED WEEP HOLES SHALL BE TAGGED TO INDICATE THAT THE BARRELS NEED TO BE PUMPED DRY AFTER EACH USE.
2. HYDRANTS SHALL NOT BE LOCATED WITHIN 10 FEET OF SANITARY SEWERS, STORM SEWERS OR STORM INLETS.
3. HYDRANT UNIT SHOWN IS AN EXAMPLE. CONTRACTOR IS TO INSTALL HYDRANT AS SHOWN ON PLAN SHEETS.
4. ALL FITTINGS SHALL BE RESTRAINED WITH WEDGE ANCHOR RETAINER GRAND. THE TWO PUSH-ON JOINTS BEFORE AND AFTER EACH RESTRAINED FITTING SHALL BE REINFORCED WITH A FIELD-LOK GASKET FOR DIP.

15/12 DETAIL
HYDRANT INSTALLATION
SCALE: NOT TO SCALE

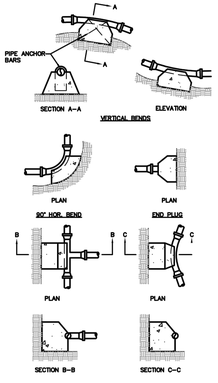


TABLE 1A VERTICAL THRUST BLOCK VOLUME 100 P.S.I.G. INTERNAL PRESSURE					
PIPE DIA. (INCHES)	90° BEND	60° BEND	45° BEND	22 1/2° 11 1/4° BEND	4° PIPE DEFLECTION 10 11 1/4° BEND
6	1.5 C.Y.	1.2 C.Y.	.8 C.Y.	.4 C.Y.	.2 C.Y.
8	2.6 C.Y.	2.0 C.Y.	1.4 C.Y.	.7 C.Y.	.4 C.Y.
10 & 12	8.0 C.Y.	4.3 C.Y.	3.0 C.Y.	1.5 C.Y.	.8 C.Y.
14 & 16	11.2 C.Y.	7.9 C.Y.	6.1 C.Y.	3.1 C.Y.	1.6 C.Y.

TABLE 1B VERTICAL THRUST BLOCK VOLUME 200 P.S.I.G. INTERNAL PRESSURE					
PIPE DIA. (INCHES)	90° BEND	60° BEND	45° BEND	22 1/2° 11 1/4° BEND	4° PIPE DEFLECTION 10 11 1/4° BEND
6	3.0 C.Y.	2.6 C.Y.	1.8 C.Y.	1.0 C.Y.	0.5 C.Y.
8	5.0 C.Y.	3.6 C.Y.	2.7 C.Y.	1.4 C.Y.	0.7 C.Y.
10	7.8 C.Y.	5.6 C.Y.	4.3 C.Y.	2.2 C.Y.	1.1 C.Y.
12	11.2 C.Y.	8.0 C.Y.	6.1 C.Y.	3.1 C.Y.	1.6 C.Y.
14	15.3 C.Y.	11.0 C.Y.	8.3 C.Y.	4.3 C.Y.	2.1 C.Y.
16	20.0 C.Y.	14.2 C.Y.	10.9 C.Y.	5.5 C.Y.	2.8 C.Y.

NOTES:
1. THRUST BLOCKS SHALL BE PLACED AT ALL BENDS, TEES, REDUCERS, AND DEAD ENDS.
2. THE MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE THRUST BLOCKS SHALL BE 5000 PSI @ 28 DAYS
3. ALL THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH. ALL THRUST BLOCKS TO BE FORMED TO AVOID DIRECT CONCRETE CONTACT WITH BOLT HEADS OR NUTS.
4. DEPENDING UPON SOIL CONDITIONS ENCOUNTERED, REQUIRED MINIMUM THRUST BLOCK SIZE COULD BE ADJUSTED, UPON DIRECTION BY THE ENGINEER, AS PER TABLE 3.
5. THE GRANITY THRUST RESTRAINT BLOCKS LOCATED BELOW VERTICAL BENDS AND FITTINGS SHALL BE ANCHORED TO THE BEND OR FITTING WITH A MINIMUM OF THREE NO. 6 REBARS AROUND THE FITTING AND ANCHORED SECURELY TO THE POURED-IN-PLACE CONCRETE BLOCK. REBAR SHALL BE BITUMASTIC COATED.
6. ON EACH SIDE OF THE PIPE FITTING, A FULL SECTION OF PIPE SHALL BE RESTRAINED WITH MEGALUG RETAINER GLANDS OR AS DIRECTED BY ENGINEER.

17/12 DETAIL
THRUST BLOCK
SCALE: NOT TO SCALE

TABLE 2A HORIZ. THRUST BLOCK AREA – S.F. 100 P.S.I.G. INTERNAL PRESSURE							
PIPE DIA. (INCHES)	PLUG OR TEE	90° BEND	60° BEND	45° BEND	30° BEND	22 1/2° BEND	11 1/4° BEND
4	1	1	1	1	–	–	–
6	2	2	2	1	1	–	–
8	3	3	3	2	1	1	–
10	4.5	6	4	3	2.5	2	1
12	6	8	6	4	3	2	1
14 & 16	10	14	10	8	5	4	2

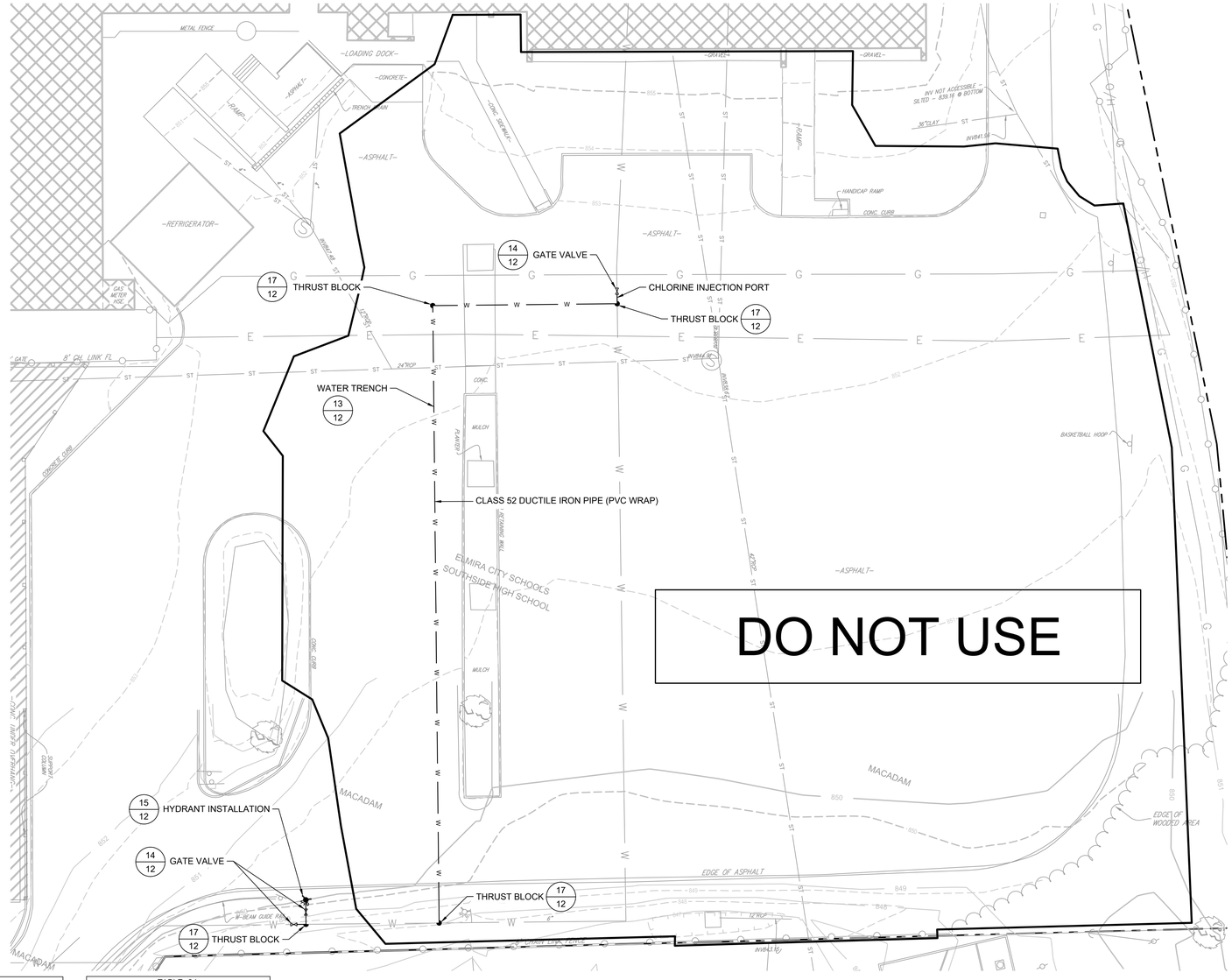
MINIMUM THRUST BLOCK AREAS REQUIRED AT PIPE BENDS AND PLUGS UNDER VARIOUS INTERNAL PRESSURE IN GRANULAR SOIL WITH A BEARING LOAD OF 2000 P.S.F.

TABLE 2B HORIZ. THRUST BLOCK AREA – S.F. 200 P.S.I.G. INTERNAL PRESSURE							
PIPE DIA. (INCHES)	PLUG OR TEE	90° BEND	60° BEND	45° BEND	30° BEND	22 1/2° BEND	11 1/4° BEND
6	5.3	7.0	5.3	4.0	3.0	2.1	1.1
8	7.5	10.0	7.5	5.5	4.0	3.0	1.5
10	11.5	16.0	11.5	8.0	6.0	4.5	2.5
12	16.5	23.0	16.5	12.5	8.5	6.5	3.5
14	22.0	31.0	22.0	17.0	11.5	9.0	4.5
16	29.0	40.5	29.0	22.0	15.0	11.5	6.0

MINIMUM THRUST BLOCK AREAS REQUIRED AT PIPE BENDS AND PLUGS UNDER VARIOUS INTERNAL PRESSURE IN GRANULAR SOIL WITH A BEARING LOAD OF 2000 P.S.F.

TABLE 3		
SOIL	SAFE BEARING LOAD P.S.F.	FACTOR
MUCK, PEAT	0	–
SOFT CLAY	300	4.00
SAND	1000	2.00
SAND & GRAVEL	1500	1.33
SAND & GRAVEL COMPACTED W/SILT	2000	1.00
SHALE	5000	0.40

SAFE BEARING LOADS OF SOILS AND FACTORS FOR MODIFICATION OF THRUST BLOCK AREAS



DO NOT USE

LEGEND
- MANHOLE
- CATCH BASIN
- CULVERT PIPE
- CHAIN LINK FENCE
- WOODEN FENCE
- PROPERTY LINE
- EXISTING CONTOUR LINE
- EDGE OF WATER
- EDGE OF WOODS OR BRUSH
- BURIED ELECTRIC CABLE
- SANITARY SEWER
- STORM SEWER
- NATURAL GAS LINE
- WATER LINE
- EXCAVATION LIMITS
- TREE

CONSTRUCTION DRAWING

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
2	05-JUN-2018	RESPONSE TO AGENCY COMMENTS	JWO	AK
1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

Beech and Bonaparte engineering p.c.
an affiliate of Geosyntec Consultants

UNISYS

TITLE: UTILIITES PLAN AND DETAILS

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION ELMIRA, NEW YORK

SIGNATURE
7/17/18
DATE

JASON A. KRASNIQI, P.E. LICENSED PROFESSIONAL ENGINEER 089954-1 STATE OF NEW YORK

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-012
REVIEWED BY:	PLB	DRAWING NO.:	
APPROVED BY:	AK	12 OF 16	

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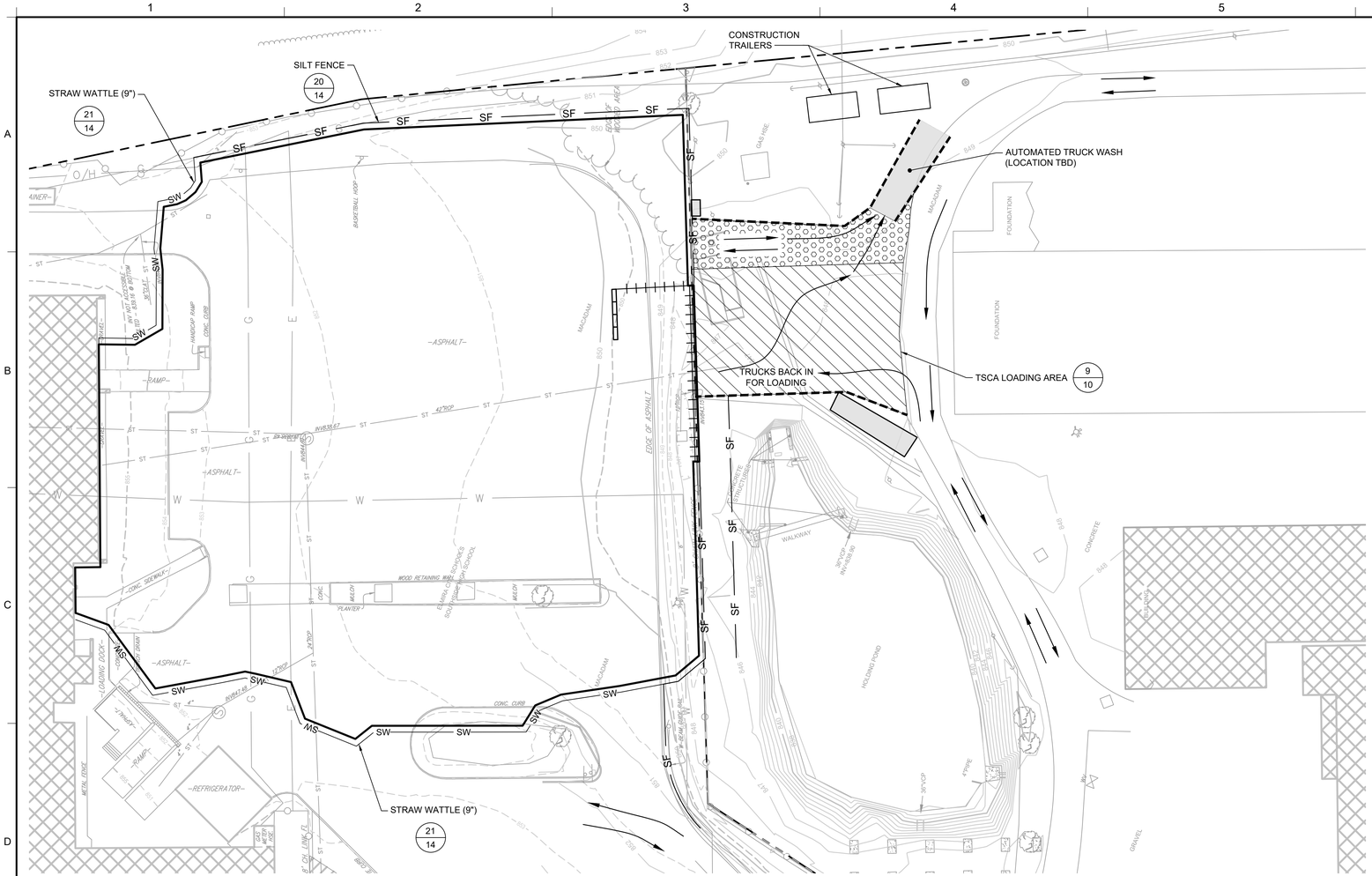

LEGEND

- MANHOLE
- CATCH BASIN
- CULVERT PIPE
- CHAIN LINK FENCE
- WOODEN FENCE
- PROPERTY LINE
- EXISTING CONTOUR LINE
- EDGE OF WATER
- EDGE OF WOODS OR BRUSH
- BURIED ELECTRIC CABLE
- SANITARY SEWER
- STORM SEWER
- NATURAL GAS LINER
- WATER LINE
- EXCAVATION LIMITS
- TREE
- LIMIT OF CONSTRUCTION DISTURBANCE
- SILT FENCE
- STRAW WATTLE

0 30' 60'

SCALE IN FEET

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

GENERAL REQUIREMENTS

1. POTENTIAL POLLUTANTS: THIS CONSTRUCTION PROJECT INVOLVES THE EXCAVATION, STOCKPILING, AND OFFSITE DISPOSAL OF SOILS CONTAINING HAZARDOUS CHEMICAL SUBSTANCES, INCLUDING PCBs. CONTRACTOR SHALL PERFORM ALL WORK IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATIONS, DRAWINGS, AND ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
2. CONTRACTOR SHALL ENSURE THAT ALL PROVISIONS FOR EROSION AND SEDIMENT CONTROL AND STORMWATER PROTECTION ARE IMPLEMENTED AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY THE TECHNICAL SPECIFICATIONS.
3. CONTRACTOR SHALL FULLY ESTABLISH ALL PERIMETER EROSION AND SEDIMENT CONTROLS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.
4. CONTRACTOR SHALL MAINTAIN ALL EROSION AND SEDIMENT CONTROLS UNTIL ALL DISTURBED AREAS HAVE ACHIEVED FINAL STABILIZATION AND A NOTICE OF TERMINATION (NOT) SUBMITTED TO THE NYSDEC.
5. CONTRACTOR SHALL MAINTAIN COPIES OF THE FOLLOWING DOCUMENTS ON-SITE DURING CONSTRUCTION:
   A. GENERAL PERMIT GP-0-15-002;
   B. NOTICE OF INTENT;
   C. NOI ACKNOWLEDGEMENT LETTER;
   D. STORMWATER POLLUTION PREVENTION PLAN (SWPPP);
   E. MS4 (I.E. CITY OF ELMIRA) SWPPP ACCEPTANCE FORM;
   F. INSPECTION REPORTS; AND
   G. ANY OTHER DOCUMENTATION NECESSARY TO ELIGIBILITY AND COMPLIANCE WITH PERMIT GP-0-15-002.
6. CONTRACTOR SHALL NOT DISTURB GREATER THAN 5 ACRES OF SOIL AT ANY ONE TIME WITHOUT PRIOR AUTHORIZATION FROM THE CITY OF ELMIRA.
7. CONTRACTOR SHALL APPLY SOD OR SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS AND STOCKPILES WITHIN SEVEN (7) CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED IN THE AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.
8. TEMPORARY SILT FENCE SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED FOR MORE THAN ONE DAY.
9. CONSTRUCTION DETAILS, MATERIAL REQUIREMENTS, DESIGN CRITERIA, AND MAINTENANCE REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL PRACTICES ARE PROVIDED ON THE DRAWING DETAILS.
10. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IMPLEMENTED IN ACCORDANCE WITH NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (NOVEMBER 2016). PRACTICES SELECTED FOR IMPLEMENTATION A INCLUDING:
    A. STABILIZED CONSTRUCTION ENTRANCE
    B. EARTH DIKE
    C. SILT FENCE
    D. COMPOST FILTER SOCK
    E. DEWATERING SUMP
    F. TEMPORARY CONSTRUCTION AREA SEEDING
    G. RECREATIONAL AREA SEEDING
11. OTHER PRACTICES NOT SHOWN ON THE DRAWINGS OR LISTED ABOVE SHALL BE IMPLEMENTED AS NECESSARY TO PROTECT WATER QUALITY AND MINIMIZE SEDIMENT RUNOFF.
12. CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO PUBLIC ROADS. ALL MATERIALS DEPOSITED ONTO PUBLIC ROADS SHALL BE REMOVED IMMEDIATELY.
13. CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN AN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES AND NON-SEDIMENT POLLUTION CONTROL MEASURES UNTIL THROUGHOUT CONSTRUCTION AND UNTIL A NOTICE OF TERMINATION FOR PERMIT GP-0-15-002 IS REVIVED.
14. CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED IN CONSTRUCTION ACTIVITIES THAT MAY AFFECT STORMWATER QUALITY SHALL SIGN THE CONTRACTOR CERTIFICATION STATEMENT.
15. SITE INFORMATION:
    A. AREA DISTURBED 1.68 ACRES.

SOIL STABILIZATION AND DUST CONTROL

1. VEGETATIVE STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (NOVEMBER 2016) FOR TEMPORARY CONSTRUCTION AREA SEEDING, RECREATIONAL AREA SEEDING, TOPSOILING, AND MULCHING.
2. TEMPORARY CONSTRUCTION AREA SEEDING.
   A. DURING SPRING, SUMMER OR EARLY FALL SEED THE AREA WITH RYEGRASS (ANNUAL OR PERENNIAL) AT 30 LBS PER ACRE (APPROXIMATELY 0.7 TO 1 LBS./1000 SQ. FT.)
   B. DURING LATE FALL OR EARLY WINTER SEED WITH CERTIFIED 'AROOSTOOK' WINTER RYE (CERYLE RYE) AT 100 LBS. PER ACRE (2.5 LBS./1000 SQ. FT.)
   C. ANY SEEDING METHOD MAY BE USED THAT WILL PROVIDE UNIFORM APPLICATION OF SEED TO THE AREA AND RESULT IN RELATIVELY GOOD SOIL TO SEED CONTACT.
   D. MULCH THE AREA WITH HAY OR STRAW AT 2 TONS/ACRE (APPROX. 90 LBS./1000 SQ. FT. OR 2 BALES). QUALITY OF HAY OR STRAW MULCH ALLOWABLE WILL BE DETERMINED BASED ON LONG TERM USE AND VISUAL CONCERNS. MULCH ANCHORING WILL BE REQUIRED WHERE WIND OR AREAS OF CONCENTRATED WATER ARE OF CONCERN. WOOD FIBER HYDROMULCH OR OTHER SPRAYABLE PRODUCTS APPROVED FOR EROSION CONTROL MAY BE USED IF APPLIED ACCORDING TO MANUFACTURERS' SPECIFICATION.
3. PERMANENT RECREATION AREA SEEDING.
   A. TIME OF PLANTING: FALL PLANTING IS PREFERRED. SEED AFTER AUGUST 15. IN THE SPRING, PLANT UNTIL MAY 15. IF SEEDING IS DONE BETWEEN MAY 15 AND AUGUST 15, IRRIGATION MAY BE NECESSARY TO ENSURE A SUCCESSFUL SEEDING.
   B. SITE PREPARATION:
   I. INSTALL NEEDED WATER AND EROSION CONTROL MEASURES AND BRING AREA TO BE SEEDED TO DESIRED GRADES. A MINIMUM OF 4 IN. TOPSOIL IS REQUIRED.
   II. PREPARE SEEDBED BY LOOSENING SOIL TO A DEPTH OF 4-6 INCHES AND DECOMPACTING REQUIRED AREAS PER SOIL RESTORATION STANDARD.
   III. SEE STANDARD AND SPECIFICATION OF TOPSOILING.
   IV. LIME TO A PH OF 6.5. SEE LIME APPLICATION STANDARD.
   V. FERTILIZE AS PER SOIL TEST OR, IF SOIL MUST BE FERTILIZED BEFORE RESULTS OF A SOIL TEST CAN BE OBTAINED TO DETERMINE FERTILIZER NEEDS, APPLY COMMERCIAL FERTILIZER AT 850 POUNDS OF 5-5-10 OR EQUIVALENT PER ACRE (20 LBS/1,000 SQ. FT.). SEE FERTILIZER APPLICATION STANDARD.
   VI. INCORPORATE LIME AND FERTILIZER IN TOP 2-4 INCHES OF TOPSOIL.
   VII. SMOOTH. REMOVE STICKS, FOREIGN MATTER, AND STONES OVER 1 INCH IN DIAMETER, FROM THE SURFACE. FIRM THE SEEDBED.
   C. PLANTING: USE A CULTIPACKER TYPE SEEDER IF POSSIBLE. SEED TO A DEPTH OF 1/8 TO 1/4 INCH. IF SEED IS TO BE BROADCAST, CULTIPACK OR ROLL AFTER SEEDING. IF HYROSEEDED, LIME AND FERTILIZER MAY BE APPLIED THROUGH THE SEEDER, AND ROLLING IS NOT PRACTICAL.
   D. MULCHING: MULCH ALL SEEDINGS IN ACCORDANCE WITH STANDARD AND SPECIFICATIONS FOR MULCHING. SMALL GRAIN STRAW IS THE BEST MATERIAL.
   E. SEED MIXTURE:

65% CREEPING RED FESCUE:	2.0 - 2.6 LBS./1000 SQ.FT. (PLS)
20% PERENNIAL RYEGRASS:	0.6 - 0.8 LBS./1000 SQ.FT. (PLS)
15% FINE FESCUE:	0.4 - 0.6 LBS./1000 SQ.FT. (PLS)
TOTAL SEED WEIGHT	3.0 - 4.0 LBS./1000 SQ. FT.

FOR VARIETIES OF SEED SUITABLE FOR SPECIFIC LOCATIONS CONTACT CORNELL COOPERATIVE EXTENSION TURF SPECIALIST.

4. SOILS MAP: ALL AREAS OF WORK ARE CLASSIFIED AS, "MADE LAND", AS PROVIDED BY USDA-NRCS, SOIL SURVEY AREA: CHEMUNG COUNTY, NEW YORK SURVEY AREA DATA: VERSION 13, SEP 23, 2016.
5. DUST CONTROL: CONTRACTOR SHALL PERFORM DUST CONTROL AS REQUIRED BY THE CONTRACT SPECIFICATIONS AND DUST CONTROL MONITORING PLAN.

NON-SEDIMENT POLLUTION PREVENTION

THIS SITE POLLUTION PREVENTION PLAN DESCRIBES GENERAL ACTIVITIES TO PREVENT GENERATION OF POLLUTANTS DUE TO IMPROPER HANDLING STORAGE AND SPILLS, AND PREVENT THE MOVEMENT OF TOXIC SUBSTANCES FORM THE SITE INTO SURFACE WATERS. THE FOLLOWING MINIMUM PRACTICES FOR STORMWATER POLLUTION PREVENTION WILL BE PERFORMED:

1. ALL STATE AND FEDERAL REGULATIONS SHALL BE FOLLOWED FOR THE STORAGE, HANDLING, APPLICATION, USAGE, AND DISPOSAL OF PESTICIDES, FERTILIZERS, AND PETROLEUM PRODUCTS.
2. VEHICLE AND CONSTRUCTION EQUIPMENT STAGING AND MAINTENANCE AREAS WILL BE LOCATED AWAY FROM ALL DRAINAGE WAYS WITH THEIR PARKING AREAS GRADED SO THE RUNOFF FROM THESE AREAS IS COLLECTED, CONTAINED AND TREATED PRIOR TO DISCHARGE FROM THE SITE.
3. CONTRACTOR SHALL PROVIDE SANITARY FACILITIES FOR ON-SITE PERSONNEL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
4. CONTRACTOR SHALL STORE, COVER, AND ISOLATE CONSTRUCTION MATERIALS INCLUDING ALL EXCAVATION SPOILS, AND CHEMICALS, TO PREVENT RUNOFF OF POLLUTANTS AND CONTAMINATION OF GROUNDWATER AND SURFACE WATERS.
5. CONTRACTOR SHALL DEVELOP AND IMPLEMENT A SPILL PREVENTION AND CONTROL PLAN. THE PLAN SHOULD INCLUDE NYSDEC'S SPILL REPORTING AND INITIAL NOTIFICATION REQUIREMENTS.
6. CONTRACTOR SHALL PROVIDE ADEQUATE DISPOSAL FOR SOLID WASTE INCLUDING WOODY DEBRIS, STUMPS, AND OTHER CONSTRUCTION WASTE AND MUNICIPAL WASTE. FILL, WOODY DEBRIS, STUMPS AND CONSTRUCTION WASTE SHALL NOT BE PLACED IN REGULATED WETLANDS, STREAMS OR OTHER SURFACE WATERS.
7. CONTRACTOR SHALL POST INFORMATIONAL MATERIAL REGARDING PROPER HANDLING, SPILL RESPONSE, SPILL KIT LOCATION, AND EMERGENCY ACTIONS TO BE TAKEN, TO ALL CONSTRUCTION PERSONNEL.
8. REFUELING EQUIPMENT SHALL BE LOCATED AT LEAST 100 FEET FROM ALL WETLANDS, STREAMS AND OTHER SURFACE WATERS.

MAINTENANCE AND INSPECTION

1. All TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES AND STORMWATER POLLUTION PREVENTION PLAN PRACTICES SHALL BE INSPECTED DAILY FOR PROPER APPLICATION AND FUNCTION AS DEFINED IN THE SPECIFICATIONS AND/OR NEW YORK STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.
2. DAILY INSPECTION REPORTS SHALL BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION.

DISCHARGE

1. ANY WATER CONTACTING EXCAVATION AREAS PRIOR TO BACKFILLING WITH SOIL COVER SYSTEM (SEE DETAIL 7, SHEET 9) OR WATER COLLECTED WITHIN THE EQUIPMENT WASH PAD SUMP, SHALL BE SEGREGATED, CHARACTERIZED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
2. AT THE COMPLETION OF CONSTRUCTION, ALL TEMPORARY ACCESS ROAD CONSTRUCTION MATERIALS AND EQUIPMENT WASH PAD CONSTRUCTION MATERIALS SHALL BE REMOVED, CHARACTERIZED, AND DISPOSED OF ACCORDANCE WITH NYSDEC-APPROVED IRM WORK PLAN.

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
2	05-JUN-2018	RESPONSE TO AGENCY COMMENTS	JWO	AK
1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

Beech and Bonaparte engineering p.c.
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UNISYS

TITLE: EROSION AND SEDIMENT CONTROL PLAN

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

SIGNATURE

7/17/18
DATE

STATE OF NEW YORK – JOHN A. KRASNICKI – 089954-1 – LICENSED PROFESSIONAL ENGINEER

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-013
REVIEWED BY:	PLB	DRAWING NO.:	13 OF 16
APPROVED BY:	AK		

CONSTRUCTION DRAWING

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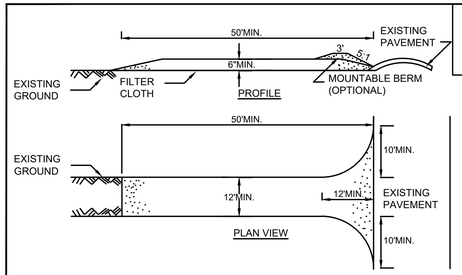
amalek - 7/17/2018 1:43 PM

SYMBOL



CONSTRUCTION SPECIFICATIONS

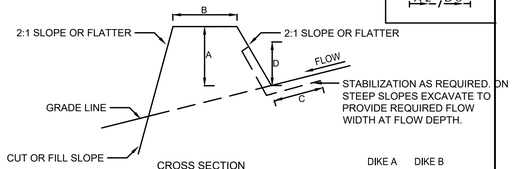
1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STABILIZED CONSTRUCTION ACCESS

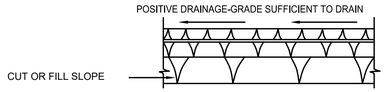
18/15 DETAIL
STABILIZED CONSTRUCTION ACCESS
SCALE: NOT TO SCALE

SYMBOL A-2 / B-3



CROSS SECTION
NOT TO SCALE

	DIKE A (5 AC. OR LESS)	DIKE B (5-10AC.)
A - DIKE HEIGHT	18"	36"
B - DIKE WIDTH	24"	36"
C - FLOW WIDTH	48"	72"
D - FLOW DEPTH	8"	15"



CONSTRUCTION SPECIFICATIONS

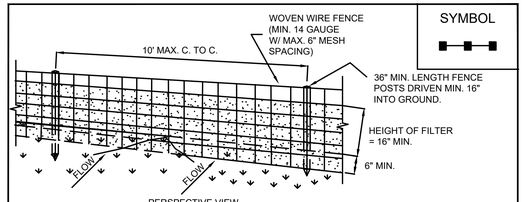
1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. FILL STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL STABILIZATION PER THE STANDARD CHART BASED ON CHANNEL GRADE.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

EARTH DIKE

19/- DETAIL
EARTH DIKE
(NOTE: AS NEEDED)
SCALE: NOT TO SCALE

SYMBOL



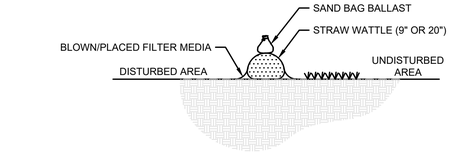
CONSTRUCTION SPECIFICATIONS

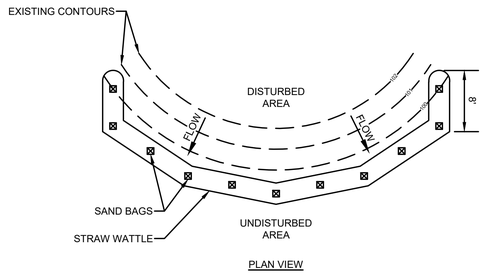
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

SILT FENCE

20/5 DETAIL
SILT FENCE
SCALE: NOT TO SCALE



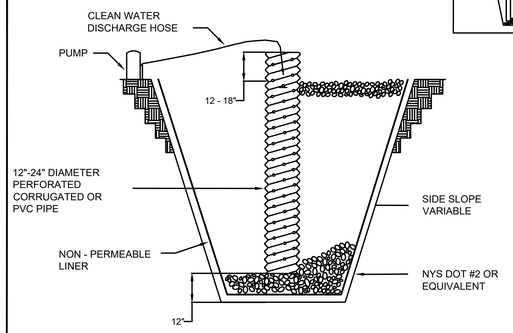


ADAPTED FROM DETAILS PROVIDED BY: FILTREXX

STRAW WATTLE

21/4 DETAIL
STRAW WATTLE
SCALE: NOT TO SCALE

SYMBOL



CONSTRUCTION SPECIFICATIONS

1. PIT DIMENSIONS ARE VARIABLE.
2. THE STANDPIPE SHOULD BE CONSTRUCTED BY PERFORATING A 12-24" DIAMETER CORRUGATED OR PVC PIPE.
3. A BASE OF NYS DOT #2 OR EQUIVALENT AGGREGATE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD BE BACKFILLED WITH NYS DOT #2 OR EQUIVALENT AGGREGATE.
4. THE STANDPIPE SHOULD EXTEND 12-18" ABOVE THE LIP OF THE PIT.
5. DIRECT DISCHARGE IS PROHIBITED.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

SUMP PIT

22/- DETAIL
EXCAVATION DEWATERING SUMP PIT
(NOTE: AS NEEDED)
SCALE: NOT TO SCALE

NOTES:

1. CONTRACTOR SHALL UTILIZE EARTH DIKE, COMPOST FILTER SOCK, AND DEWATERING SUMP PIT.
2. CONTRACTOR SHALL INSTALL TEMPORARY 6' TALL CHAIN LINK FENCING PARALLEL TO THE LIMITS OF CONSTRUCTION DISTURBANCE. FENCING SHALL INCLUDE VISUAL SCREENING.

REV	DATE	DESCRIPTION	DRN	APP
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1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

Beech and Bonaparte engineering p.c.
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UNISYS

TITLE: EROSION AND SEDIMENT CONTROL DETAILS

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION ELMIRA, NEW YORK

SIGNATURE
7/17/18
DATE

JOHN A. KRASNOWIEC — STATE OF NEW YORK — 089954 — LICENSED PROFESSIONAL ENGINEER

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-014
REVIEWED BY:	PLB	DRAWING NO.:	
APPROVED BY:	AK		14 OF 16

CONSTRUCTION DRAWING

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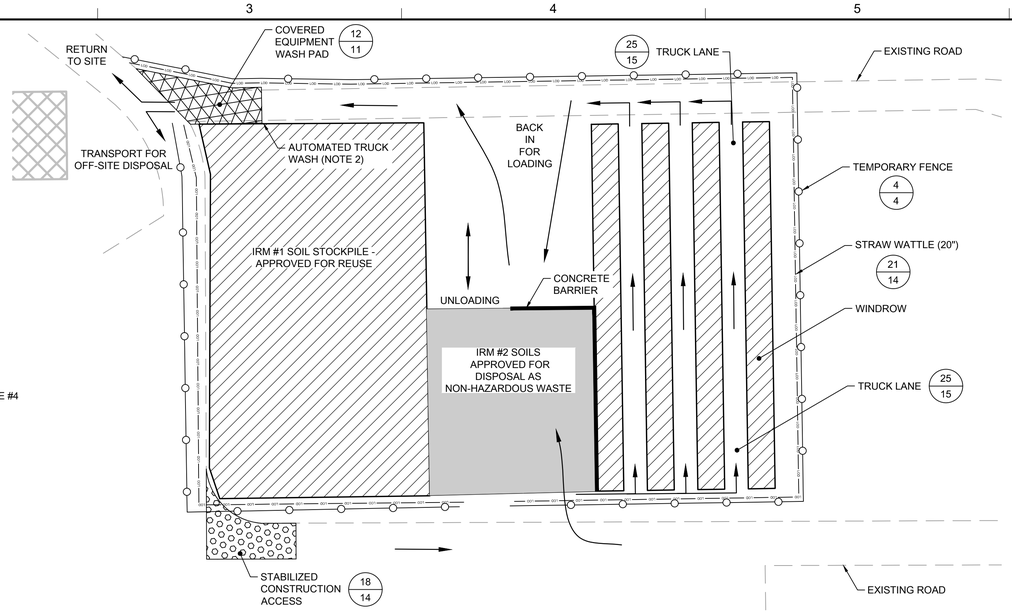
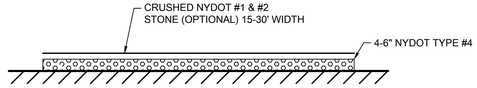
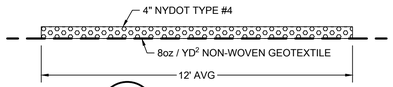


24 / 15 PLAN
STOCKPILE AREA
SCALE: 1" = 40'

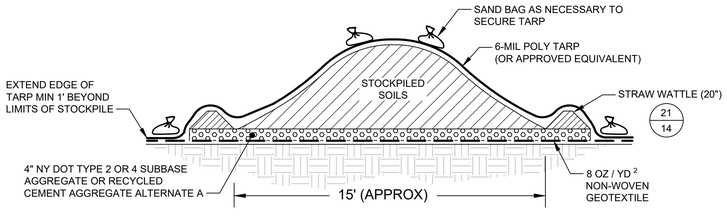


28 / 15 DETAIL
TEMPORARY PARKING AREA
SCALE: NOT TO SCALE

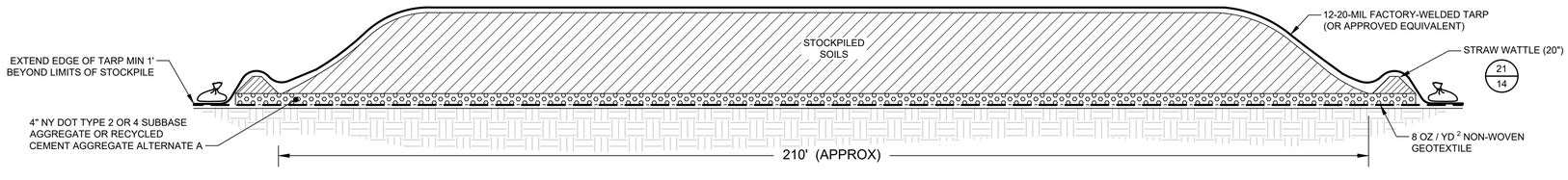
1. LENGTH TO BE DETERMINED BY TOAL CREW VEHICLES EXPECTED
2. LENGTH SHALL NOT EXTEND PAST HAUL ROAD CURVE OR SOUTHERN FENCE LINE.



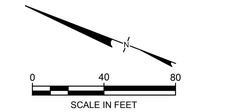
25 / 15 DETAIL
TRUCK LANE
SCALE: NOT TO SCALE



26 / 15 DETAIL
SOIL STOCKPILE (SIDE VIEW)
SCALE: NOT TO SCALE



27 / 15 DETAIL
SOIL STOCKPILE (FRONT VIEW)
SCALE: NOT TO SCALE



LEGEND

- CHAIN LINK FENCE
- COMPOST FILTER SOCK
- TRUCK TRANSFER DIRECTION
- STOCKPILE 5 / 10
- LOD — LIMIT OF DISTURBANCE

UNLOADING SEQUENCE (APPROVED FOR NON-HAZARDOUS DISPOSAL):

1. TRUCK ENTERS TEMPORARY ENTRANCE INTO MSA.
2. TRUCK PULLS UP TO STOCKPILE.
3. TRUCK BACKS ONTO STOCKPILE.
4. TRUCK UNLOADS.
5. TRUCK PULLS FORWARD INTO TRUCK LANE.
6. TRUCK ENTERS AUTOMATED TRUCK WASH FOR WET DECON.
7. TRUCK EXITS AUTOMATED TRUCK WASH ONTO ASPHALT ROAD.
8. TRUCK RETURNS TO SITE

LOADING SEQUENCE (APPROVED FOR NON-HAZARDOUS DISPOSAL):

1. TRUCK ENTERS TEMPORARY ENTRANCE INTO MSA.
2. TRUCK BACKS UP TO CONCRETE BARRIER.
3. TRUCK IS LOADED BY EXCAVATOR.
4. TRUCK PULLS FORWARD INTO TRUCK LANE.
5. TRUCK ENTERS AUTOMATED TRUCK WASH FOR WET DECON.
6. TRUCK EXITS AUTOMATED TRUCK WASH ONTO ASPHALT ROAD.

LOADING SEQUENCE (SOIL APPROVED FOR REUSE AS BACKFILL):

1. TRUCK ENTERS TEMPORARY ENTRANCE INTO MSA.
2. TRUCK PULLS UP TO STOCKPILE TO BE LOADED, STAYING ON ASPHALT ROAD.
3. TRUCK IS LOADED BY EXCAVATOR.
4. TRUCK CONTINUES AROUND STOCKPILE.
5. TRUCK ENTERS AUTOMATED TRUCK WASH FOR WET DECON.
6. TRUCK EXITS AUTOMATED TRUCK WASH ONTO ASPHALT ROAD.

UNLOADING SEQUENCE (WINDROW):

1. TRUCK ENTERS TEMPORARY ENTRANCE INTO MSA.
2. TRUCK PULLS UP TO END OF ACTIVE WINDROW.
3. TRUCK BACKS ONTO ACTIVE WINDROW.
4. TRUCK UNLOADS AT END OF ACTIVE WINDROW.
5. TRUCK PULLS FORWARD INTO TRUCK LANE.
6. TRUCK EXITS ONTO ASPHALT ROAD.
7. TRUCK ENTERS EQUIPMENT WASH PAD FOR WET DECON.
8. TRUCK EXITS EQUIPMENT WASH PAD AND RETURNS TO EXCAVATION AREA.

LOADING SEQUENCE (WINDROW):

1. TRUCK ENTERS TEMPORARY ENTRANCE INTO MSA.
2. TRUCK PULLS UP TO ACTIVE WINDROW TO BE LOADED, STAYING IN TRUCK LANE.
3. TRUCK IS LOADED BY EXCAVATOR.
4. TRUCK EXITS ONTO ASPHALT ROAD.
5. TRUCK ENTERS EQUIPMENT WASH PAD FOR WET DECON.
6. TRUCK EXITS EQUIPMENT WASH PAD AND RETURNS TO EXCAVATION AREA.

NOTES:

1. CONTRACTOR SHALL UTILIZE EARTH DIKE, COMPOST FILTER SOCK, AND DEWATERING SUMP PIT, AS NECESSARY.
2. AUTOMATED TRUCK WASH SHALL BE MOBYDICK CONLINE WHEELWASHING SYSTEMS MANUFACTURED BY FRUTIGER COMPANY AG, OR EQUIVALENT APPROVED BY ENGINEER.
3. CONTRACTOR SHALL INSTALL TEMPORARY 6' TALL CHAIN LINK FENCING PARALLEL TO THE LIMITS OF CONSTRUCTION DISTURBANCE, AS NEEDED. FENCING SHALL INCLUDE VISUAL SCREENING.
4. SECTION(S) OF TEMPORARY FENCE WILL BE REMOVED TO CREATE AN ENTRANCE TO THE MSA AT THE BEGINNING OF EACH DAY OF UNLOADING OR LOADING OPERATIONS. SECTION LOCATION(S) MAY VARY. REMOVED SECTIONS SHALL BE RESTORED AND SECURED AT THE END OF EACH DAY OF MSA OPERATIONS.
5. STOCKPILING OF SOILS FOR POTENTIAL RE-USE SHALL BEGIN AT THE SOUTH END OF THE MSA.
6. STOCKPILING OF SOILS FOR OFF-SITE TRANSPORT AND DISPOSAL AS NON-HAZARDOUS WASTE WILL BEGIN AT THE NORTH END OF THE MSA.
7. WINDROW LAYOUT ALLOWS FOR STOCKPILING OF APPROXIMATELY 4000 CUBIC YARDS (CY) OF SOIL. IF GREATER VOLUME IS REQUIRED, CONTRACTOR MAY REQUEST STOCKPILING OF SOILS WITH LIKE ANALYTICAL RESULTS APPROVED FOR RE-USE OR OFF-SITE DISPOSAL.
8. APPROXIMATELY 30 LINEAR FEET OF WINDROW IS EQUIVALENT TO 100 CY.

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UNISYS

TITLE: MATERIAL STAGING AREA PLAN (MSA) PLAN

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION
ELMIRA, NEW YORK

SIGNATURE
7/17/18
DATE

JOHN A. KRASNOPOLSKY — STATE OF NEW YORK — 089954 — LICENSED PROFESSIONAL ENGINEER

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-015
REVIEWED BY:	PLB	DRAWING NO.:	
APPROVED BY:	AK	15 OF 16	

CONSTRUCTION DRAWING

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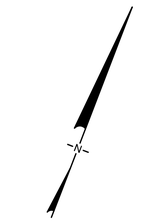
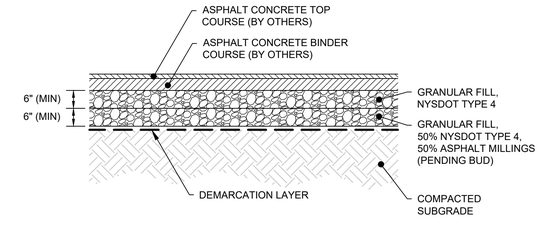


0 20' 40'

SCALE IN FEET

LEGEND

- MANHOLE
- CATCH BASIN
- 12"CMP — CULVERT PIPE
- CHAIN LINK FENCE
- WOODEN FENCE
- PROPERTY LINE
- 90 — EXISTING CONTOUR LINE
- EDGE OF WATER
- EDGE OF WOODS OR BRUSH
- E — BURIED ELECTRIC CABLE
- SAN — SANITARY SEWER
- ST — STORM SEWER
- G — NATURAL GAS LINER
- W — WATER LINE
- EXCAVATION LIMITS
- TREE



28/16 DETAIL

ASPHALT PAVEMENT

SCALE: NOT TO SCALE

XREF: MN0832DX002

NOTES:

1. INTERMEDIATE FINAL GRADES ARE BASED ON DRAWING "L4.2 SITE INTERMEDIATE GRADING PLAN" PROVIDED BY HUNT ENGINEERS, ARCHITECTS, SURVERYORS ON 21 MARCH 2018.
2. INTERMEDIATE FINAL GRADES ARE SUBJECT TO CHANGE BASED ON THE REQUIREMENTS OF ELMIRA CITY SCHOOL DISTRICT OR ITS CONTRACTORS.

CONSTRUCTION DRAWING

REV	DATE	DESCRIPTION	DRN	APP
4	16-JUL-2018	RESPONSE TO FIELD OBSERVATIONS	AM	AK
3	12-JUL-2018	RESPONSE TO FIELD OBSERVATIONS - AGENCY COMMENTS	BGF	AK
2	05-JUN-2018	RESPONSE TO AGENCY COMMENTS	JWO	AK
1	10-APR-2018	EXCAVATION LIMITS UPDATED BASED ON DATA RECEIVED AFTER 12 MARCH 2018	JWO	AK

Beech and Bonaparte engineering p.c.

an affiliate of Geosyntec Consultants

UNISYS

TITLE: INTERMEDIATE FINAL GRADE

PROJECT: INTERIM REMEDIATION MEASURE

SITE: FORMER SPERRY-REMINGTON SITE - NORTH PORTION ELMIRA, NEW YORK

SIGNATURE

7/17/18

DATE

STATE OF NEW YORK — JOHN A. KRASNOPOLSKY — 089954 — LICENSED PROFESSIONAL ENGINEER

DESIGN BY:	AK	DATE:	JULY 2018
DRAWN BY:	JWO	PROJECT NO.:	MN0832D
CHECKED BY:	TBR	FILE:	MN0832D-016
REVIEWED BY:	PLB	DRAWING NO.:	
APPROVED BY:	AK	16 OF 16	

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